

**AGRICULTURAL PRACTICES  
WHICH COULD ENHANCE SOLAR  
POWERED IRRIGATION PLANT UTILITY**

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A Research Report to  
Sandia Laboratories  
Albuquerque, New Mexico 87115

by

Departments of Soils, Water and Engineering  
and Agricultural Economics  
University of Arizona  
Tucson, Arizona 85721

Report Period: September 1977 - May 1978  
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## SUMMARY

Solar power plants only utilized to drive irrigation pumps may be unused for 2-7 months and under-utilized during other periods of the year. The energy use schedules presented in this report show increased utilization of on-farm solar power plants is possible. Some of the increase could be obtained by providing electricity for other applications and altering pumping schedules; additional utilization could be obtained through use of waste thermal energy.

Pumping schedules could be altered substantially if irrigation or cropping practices were modified or water were stored. The latter may not be economically feasible, the former are limited by climate, soils and terrain, farm management and crop marketing.

Residences are located on most farms, fall harvested grain commonly is dried for storage, and livestock and poultry operations require electricity and some heating. Crop processing operations, such as cotton ginning, and other agricultural businesses, for example greenhouses, also require thermal and electrical energy. Farms commonly are very specialized and would not include several enterprises. Establishment of more general purpose agricultural operations or joint ventures would be required to obtain a wider range of uses for excess energy.

More complete utilization of solar power plant output can be obtained on the farm. However, major changes in farming practices or structure are generally necessary to substantially alter the present use pattern or increase the number of applications.

## INTRODUCTION

Irrigation is used on only about 11 percent of U.S. cropland acreage, but irrigated areas contribute about 25 percent of the total crop production value. About 85 percent of the irrigated acreage is in the 17 Western states (Sloggett, 1977). Crop production in arid areas of these states is dependent on irrigation and would be reduced to a fraction of present output if irrigation water became unavailable.

Energy consumption for irrigation purposes was  $2.6 \times 10^{14}$  Btu in 1974 in the United States. Underground aquifers provided water for about two-thirds of the estimated 35 million acres irrigated in the United States in 1974 (Sloggett, 1977). With subsurface water sources, seventy to ninety percent of the on-farm energy used for irrigated crop production may be required to drive irrigation pumps (Larson and Fangmeier, 1977).

Energy price increases and potential natural gas cutoffs have forced many farmers to reconsider their use and source of energy. Irrigation energy changes have a tremendous impact since crops produced in irrigated areas are also grown by a large number of farmers across the United States. Thus, the opportunity to pass energy cost increases on to consumers is minimal.

Biomass, wind, and solar energy sources are available on farms, but may require development of more efficient and economical collection and conversion processes to be competitive with fossil fuels. With capital intensive collection and conversion processes, full utilization of equipment is required to minimize energy costs. This study provides energy demand schedules for irrigation pumping and several other agricultural applications in the West. The schedules are presented to assist with evaluation of power plant utilization by agricultural customers.

## OBJECTIVES

- I. Compile irrigation water application and energy demand schedules for major irrigated crops grown in the Western U.S. using present irrigation methods.
- II. Identify alternative irrigation and cropping practices which could reduce peak pumping requirements and lengthen the pumping period.
- III. Compute irrigation costs.
- IV. Compile thermal and electrical energy use schedules for other agricultural applications.

## IRRIGATION ENERGY USE

Regionalization

Irrigation data are reported by state except for California which has been subdivided into six major irrigated areas. State boundaries were used since other on-farm energy data were available by state and irrigation and energy experts are generally state employees knowledgeable of a state. Each state includes irrigated areas differing in topography, soils, and climate. Crops and irrigation practices also vary among these areas. Only major irrigated acreages are reported. The regionalization is shown in Figure 1.

Irrigation Methods

Several irrigation methods are used in the irrigation of crops. The principal methods, with representative values for irrigation efficiency and delivery pressure, are listed in Table 1. A short description of each system follows.

1. Center pivot - The center pivot system is a self-propelled, moving irrigation delivery pipe or lateral which pivots about a central point. It is suspended by wheels and supported by towers and cables. Laterals may be as long as one-quarter of a mile. The system irrigates a circular area and has pressure requirements of 40-90 psi. Center pivot systems are virtually labor-free.
2. Side roll - In the side roll system, wheels are attached to a lateral so that the pipe can be rapidly moved from one section of the field to the next. Side roll systems move in a straight line across rather than down the rows. Labor is needed to disconnect the lateral from the main line, move the lateral line to the next position and reconnect the lateral to the main line. Pressure requirements of the side roll are about 60 psi.
3. Big gun traveller - These systems are found mostly in the Midwest. The traveller consists of a single large sprinkler mounted on a four wheel trailer. A winch mounted on the trailer pulls the traveller down the field.

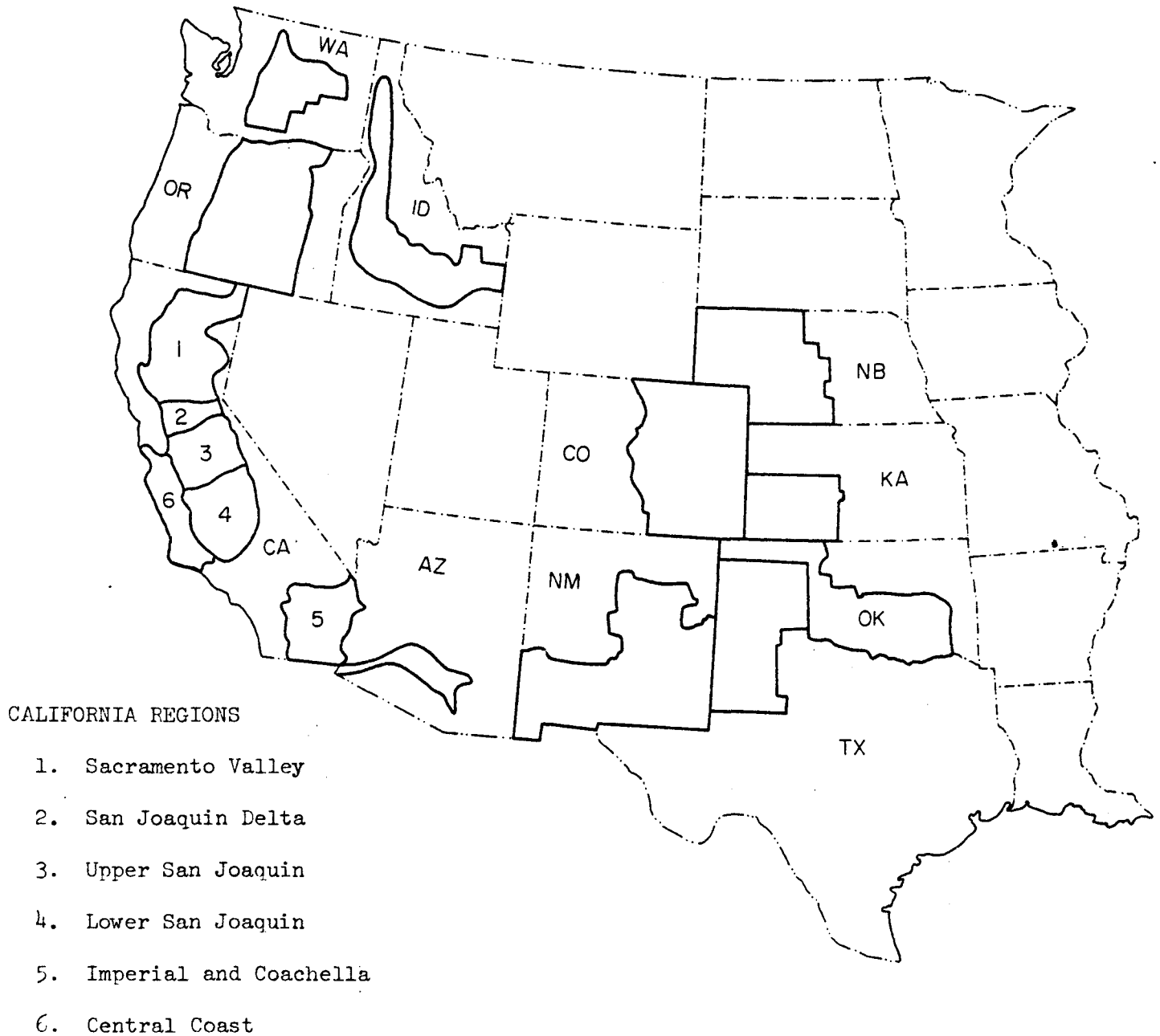


Figure 1. Irrigation regionalization.

Table 1. Irrigation Systems

System	Pressure, psi	Assumed Water Application Eff.
1. Center pivot	80	.80
2. Side roll	60	.75
3. Big Gun	110	.70
4. Solid set	50	.80
5. Hand move	60	.75
6. Mechanical move	100	.70
7. Drip	25	.95
8. Open ditch without return system	1	.50
9. Open ditch with return system	10.8	.60
10. Gated pipe without return system	7	.60
11. Gated pipe with return system	17.8	.70

Travellers operate best on relatively flat fields. Pressure requirements range as high as 110 psi.

4. Solid set - In a solid set system, the acreage to be irrigated is covered with pipe and sprinklers. Once the pipes are laid out, the system is not moved again until the end of the season. The amount of water applied can be easily controlled with a solid set system. Labor is required at the beginning of the season for installation and at the end for removing the system. During the growing period, labor may be needed to manually open and close the valves. Solid sets operate at about 50 psi.
5. Handmove - This system is typically hand assembled for a particular irrigation, operated until the correct amount of water is applied, and then disassembled and transported to the next irrigation location, perhaps 50-60 ft. across the field. This system is used in California and requires the most labor of all sprinkler systems. Operating pressure is about 60 psi.
6. Mechanical move - Here, a mechanical move sprinkler refers specifically to a system in which two boom type sprinklers are mounted on a large truck which drives through the field. These systems are found on the island of Hawaii. The truck does not carry the water, rather it drags a hose connected to the water source. Pressure requirements are about 100 psi.
7. Drip (or trickle) - Drip irrigation allows for a slow application of small amounts of water through tubes to emitters. Each emitter wets a relatively small area and thus localizes water flow to a specific area. It is claimed that drip irrigation efficiencies are highest of all systems now in use. Drip irrigation requires a modest 25 psi pressure.
8. Open ditch without a return system - Water flows by gravity through an open canal ditch at the edge of the field. Siphon tubes are used to transfer the water from the canal to either furrows or borders. Labor requirements are extensive in open ditch systems. No delivery pressure is needed.



9. Open ditch with a return system - As above, water flows in an open ditch and is transferred to either furrows or borders. In this system, however, runoff water is recaptured, pumped to the main canal and reused in subsequent irrigations. Pumping lifts of 25 ft. (about 11 psi) may be required.
10. Gated pipe without a return system - In this system, gated pipe replaces the open ditch to move water to the field. Water conveyance losses are minimized; water savings can be as much as 10 percent. Gated pipes also allow for more control in monitoring and applying the correct amount of water. Pressure requirements are about 7 psi.
11. Gated pipe with return system - This probably is the most efficient of the surface delivery systems presently in common use. Irrigation efficiencies can be 20 percent greater than with ordinary open ditch without pumpback systems. Pressure requirements are about 17 psi.

#### Irrigation Data

Irrigation data compiled in this study include water application schedules, crop evapotranspiration requirements, irrigation methods, irrigated acreages, pumping lifts and water sources. The information was obtained through personal interviews with state irrigation experts and from available published data (Appendix E). Information for Washington and Oregon is based on reports by King et al. (1977) and Aerospace (1976).

Irrigated acreages for the major crops grown in each region are tabulated by irrigation method in Appendix A. These crops and the methods commonly used to irrigate them are presented in summary form in Table 2. Pumping lifts and energy sources used to compute energy demand are also presented in Table 2.

Energy requirements were computed from irrigation water application schedules using the following equation:

Table C Crops, irrigation systems, energy source and pumping lifts.

Region	Crops	Irrigation Systems	Primary Energy Source	Percent Ground-water Source	Pumping Lift, ft.	
					Ground-water Source	Surface Water Source
ARIZONA	Cotton, sorghum	Open ditch without pumpback, center pivot	Electricity	60	375	5
	Alfalfa, wheat	Open ditch without pumpback, side roll				
CALIFORNIA, Sacramento Valley	Pasture, alfalfa, almonds	Gated pipe without pumpback, hand move	Electricity	26	53	0
	Rice	Gated pipe without pumpback				
	Sugar beets	Gated pipe/open ditch without pumpback, hand move				
CALIFORNIA, San Joaquin Delta	Pasture, alfalfa, sugar beets, tomatoes	Gated pipe without pumpback, hand move	Electricity	37	89	0
	Grapes	Gated pipe without pumpback, solid set				
CALIFORNIA Upper San Joaquin	Pasture	Gated pipe without pumpback, hand move	Electricity	32	123	0
	Almonds, grapes	Gated pipe without pumpback, solid set				
	Cotton	Gated pipe with pumpback, hand move				
	Alfalfa	Gated pipe with/without pumpback, hand move				
CALIFORNIA Lower San Joaquin	Cotton, grain, alfalfa	Gated pipe with pumpback, hand move	Electricity	57	181	0
	Grapes	Gated pipe with pumpback, solid set				
CALIFORNIA Imperial Coachella	Alfalfa, grain, sugar beets, sorghum, lettuce	Gated pipe without pumpback	Electricity	2	124	0

Table 2. (continued)

Region	Crops	Irrigation Systems	Primary Energy Source	Percent Ground-water Source	Pumping Lift, ft.	
					Ground-water Source	Surface Water Source
CALIFORNIA						
Central Coast	Lettuce	Gated pipe without pumpback plus hand move	Electricity	98	103	0
	Alfalfa	Hand move				
	Dry beans	Gated pipe without pumpback, hand move				
COLORADO	Corn, hay, grain	Open ditch without pumpback and center pivot	Electricity	45	120	13
HAWAII	Sugar cane	Open ditch without pumpback, drip	Electricity	60	250	0
	Pineapple	Mechanical move				
	Lettuce	Hand move, drip				
	Papaya	Drip				
IDAHO	Alfalfa, grain, potatoes, sugar beets	Open ditch without pumpback, hand move	Electricity	29	252	13
KANSAS	Corn, wheat, sorghum, alfalfa	Gated pipe without pumpback and center pivot	Natural Gas	95	225	17
NEBRASKA	Corn	Gated pipe without pumpback and center pivot	Electricity	85	103	20
NEW MEXICO	Sorghum, alfalfa south and north	Open ditch without pumpback and center pivot	Natural Gas	70	250	0
	Cotton	Open ditch without pumpback, side roll, big gun				
	Wheat	Open ditch without pumpback, center pivot and big gun				

Table 2. (continued)

Region	Crops	Irrigation Systems	Primary Energy Source	Percent Ground-water Source	Pumping Lift, ft.	
					Ground-water Source	Surface Water Source
OKLAHOMA	Wheat, sorghum, corn	Open ditch without pumpback, center pivot	Natural Gas	79	275	30
	Alfalfa	Open ditch without pumpback, side roll				
	Peanuts	Hand move				
OREGON	Hay, sweet corn, fruits-nuts-berries	Open ditch without pumpback, hand move	Electricity	13	84	17
	Potatoes	Hand move				
TEXAS	Sorghum, cotton	Open ditch without pumpback, center pivot	Natural Gas	95	250	0
	Wheat forage, wheat grain	Open ditch without pumpback, center pivot				
	Corn	Open ditch without pumpback, center pivot				
WASHINGTON	Hay, wheat	Open ditch without pumpback, side roll	Electricity	13	212	20
	Fruit-nuts-berries	Open ditch without pumpback, solid set				
	Vegetables	Open ditch without pumpback, hand move				

$$\text{Energy, Kwh/ac. ft. ft.} = \frac{(\text{Kwh/ac. ft. per foot head}) (\text{Head, ft.})}{(\text{Pumping plant efficiency})}$$

where: Energy required to lift one acre foot of water one foot  
 = 1.024 Kwh/ac. ft. ft.

Pumping plant efficiency = 0.66 for electrically driven centrifugal pumps (Nebraska Standard Performance, Roberts and Hagan, 1975)

Head = pumping lift + system pressure required to deliver irrigation water to the crops

Several energy sources, including electricity, natural gas, diesel fuel and LP gas, are used in each of the regions. One widely used source, electricity, was used in the energy computation for all of the regions to obtain comparable energy demand schedules.

#### Irrigation Schedules

Consumptive water requirement, irrigation water application, and irrigation energy demand schedules are presented for each crop in Appendix B. Schedules are given for the most common sprinkler and surface irrigation techniques utilized in each region. Energy requirements are calculated for areas that utilize surface water and also for farms that use pumped groundwater.

Less water is frequently required with sprinkler than with surface irrigation methods. Irrigation efficiency, amount of water required divided by amount of water delivered, is used to compare irrigation methods. In many of the schedules, irrigation supplements rainfall to meet crop needs. A comparison of irrigation quantities, rather than efficiencies, is thus more applicable.

Size and timing of peak energy demand as well as total energy demand are summarized in Table 3 for ground and surface water pumping. Energy requirements are generally greater with sprinkler than with surface irrigation methods

Table 3. Peak and Annual Water and Energy Requirements.

Region	Crop	Irrigation System	Peak Period, Month*	Water Appli. IN/PD**	Peak Requirement		Annual Requirement		
					Energy Demand w/Ground-water KWH/PD	Energy Demand w/Surface Supply KWH/PD	Annual Water Appli. IN/YR	Annual Energy Demand w/Ground-water KWH/YR	Annual Energy Demand w/Surface Supply KWH/YR
ARIZONA	Cotton	Ditch w/o PB	7,8	7	341	7	70	3408	70
		Center Pivot	7,8	6	434	147	49	3545	1203
	Alfalfa	Ditch w/o PB	5-9	6	292	6	84	4092	84
		Side roll	6-8	6	398	111	78	5175	1446
	Winter wheat	Ditch w/o PB	4,5	6	292	6	42	2046	42
		Side roll	4,5	5	332	93	34	2256	632
	Sorghum	Ditch w/o PB	6-8	7	341	7	40	1948	40
		Center pivot	5-9	6	434	147	30	2168	735
CALIFORNIA	Sacramento Valley Pasture	Pipe w/o PB	4-9	6	54	13	63	567	132
		Hand move	4-8	5	124	90	50	1238	900
	Rice	Pipe w/o PB	6,7	9	80	19	98	878	210
	Alfalfa	Pipe w/o PB	4-8	8	71	17	47	422	100
		Hand move	4-8	6.5	161	116	37.5	927	673
	Almonds	Pipe w/o PB	5-7	7	63	15	43	387	93
		Hand move	5-8	4	99	72	35	866	630
	Sugar beets	Pipe w/o PB	6-8	6	54	13	36	324	74
		Hand move	6-8	4	99	72	25	618	450

Table 3. (continued)

Region	Crop	Irrigation System	Peak Requirement				Annual Requirement			
			Peak Period, Month*	Water Appli. IN/PD**	Energy Demand		Annual Water Appli. IN/YR	Annual w/Ground-water KWH/YR	Annual Energy Demand w/Surface Supply KWH/YR	
					w/Ground-water KWH/PD	w/Surface Supply KWH/PD				
CALIFORNIA										
San Joaquin Delta	Pasture	Pipe w/o PB	6-8	6	82	13	51	692	104	
		Hand move	6-8	5	147	90	39	1147	702	
	Alfalfa	Pipe w/o PB	5-8	6	82	13	41	558	85	
		Hand move	5-8	5.5	162	98	34	1001	610	
	Sugar beets	Pipe w/o PB	5-8	6	82	13	36	490	74	
		Hand move	5-8	5	147	90	29	855	522	
	Tomatoes	Pipe w/o PB	5-7	7.5	102	16	34.5	470	74	
		Hand move	5-7	4.5	132	81	27.5	808	494	
	Grapes	Pipe w/o PB	5-8	6	82	13	30	410	65	
		Solid set	5-8	4	106	60	24	636	360	
	CALIFORNIA									
	Upper San Joaquin	Pasture	Pipe w/o PB	5-8	6	108	13	67	1206	143
Hand move			5-8	4	135	72	46	1552	828	
Alfalfa		Pipe w/o PB	5-7	8	168	41	62	1302	314	
		Hand move	4-8	6	203	107	49	1657	876	
Almonds		Pipe w/o PB	4-8	6	108	13	42	756	91	
		Solid set	4-7	5	154	75	33.5	1032	502	
Grapes		Pipe w/o PB	5-8	7	126	15	43	774	93	
		Solid set	5-8	6	185	90	33	1017	495	
Cotton		Pipe w/o PB	6-8	10	210	51	48	1008	245	
		Hand move	6-8	7	237	125	38.5	1301	690	

Table 3. (continued)

Region	Crop	Irrigation System	Peak Period, Month*	Peak Requirement			Annual Requirement		
				Water Appli. IN/PD**	Energy w/Ground-water KWH/PD	Demand w/Surface Supply KWH/PD	Annual Water Appli. IN/YR	Annual Energy w/Ground-water KWH/YR	Annual Energy Demand w/Surface Supply KWH/YR
CALIFORNIA									
Lower San Joaquin	Cotton	Pipe w/o PB	5-7	10	285	51	50	1423	256
		Hand move	5-9	8	330	143	40	1652	716
	Grains	Pipe w/o PB	2,3	5	142	25	18	512	91
		Hand move	2,3	4	165	72	12	495	216
	Alfalfa	Pipe w/o PB	4-9	7	199	36	67	1906	338
		Hand move	4-9	6	248	107	53	2189	949
	Grapes	Pump w/o PB	5-8	9	229	19	51	1299	108
		Solid set	5-8	7	268	104	41	1570	612
CALIFORNIA									
Imperial Coachella	Alfalfa	Pipe w/o PB	5-9	10	181	21	72	1306	153
	Grains	Pipe w/o PB	3,4	8	145	17	32	580	68
	Sugar beets	Pipe w/o PB	9,10	8	145	17	59	1070	126
	Sorghum	Pipe w/o PB	7,8	7	127	15	40	726	86
	Lettuce	Pipe w/o PB	7-10	6	109	13	36	654	78
CALIFORNIA									
Central Coast	Lettuce	Pipe w/o PB	1-9	5	77	36	54	1020	300
	Alfalfa	Hand move	5-9	6	187	107	45	1405	808
	Dry beans	Pipe w/o PB	6-8	5	77	10	20	308	40
Hand move		6-8	3	94	54	14	437	252	



Table 3. (continued)

Region	Crop	Irrigation System	Peak Period, Month*	Peak Requirement			Annual Requirement			
				Water Appli. IN/PD**	Energy w/Ground-water KWH/PD	Demand w/Surface Supply KWH/PD	Annual Water Appli. IN/YR	Annual Energy w/Ground-water KWH/YR	Demand w/Surface Supply KWH/YR	
COLORADO	Corn	Ditch w/o PB	5-9	5	79	10	37	582	74	
		Center pivot	5-9	4	157	102	24	942	615	
	Hay	Ditch w/o PB	4-9	6	95	12	58	916	116	
		Center pivot	4-9	4.5	177	115	38.5	1514	984	
	Wheat	Ditch w/o PB	4-6	4	63	8	21	331	42	
		Center pivot	4-6	2.1	83	54	16.1	634	412	
HAWAII	Sugar cane	Ditch w/o PB	4-9	5	163	1	85.5	2786	24	
		Drip	4-9	3.5	139	26	58	2308	428	
	Pineapple	Mech. move	1-12	0.5	31	15	6	372	180	
	Vegetables (Lettuce-cont. crop)	Hand move	4-9	3	151	54	51	2568	912	
		Drip	4-9	2.5	99	19	42	1668	312	
	Papaya	Drip	4-9	4.5	179	34	84	3336	636	
	IDAHO	Alfalfa	Ditch w/o PB	5-9	7	230	14	52	1707	104
			Hand move	5-9	4.4	222	86	39.6	1998	774
Grain		Ditch w/o PB	5-7	7	230	14	30	985	60	
		Hand move	5-7	4.4	222	86	19.6	989	383	
Potatoes		Ditch w/o PB	7,8	8	263	16	46	1513	92	
		Hand move	7,8	7	353	137	32.2	1622	628	
Sugar beets		Ditch w/o PB	7,8	8	263	16	49	1610	98	
		Hand move	7,8	6	303	117	33.8	1706	660	

Table 3. (continued)

Region	Crop	Irrigation System	Peak Period, Month*	Peak Requirement			Annual Requirement		
				Water Appli. IN/PD**	Energy Demand		Annual Water Appli. IN/YR	Annual Energy Demand	
					w/Ground-water KWH/PD	w/Surface Supply KWH/PD		w/Ground-water KWH/YR	w/Surface Supply KWH/YR
KANSAS	Corn	Pipe w/o PB	6-8	4	125	17	23	715	99
		Center pivot	6-8	4	212	104	23	1219	598
	Wheat	Pipe w/o PB	3,5	3	93	13	17	528	74
		Center pivot	3,5	3	159	78	17	900	442
	Sorghum	Pipe w/o PB	6-8	4	125	17	22.7	708	96
		Center pivot	6-8	4	212	104	19.6	1039	510
	Alfalfa	Pipe w/o PB	6-8	8	249	34	35	1091	149
		Center pivot	6-8	4.5	238	117	36.2	1916	941
NEBRASKA	Corn	Pipe w/PB	6-8	4	62	19	20	308	94
		Center pivot	6-8	4	149	106	17	633	449
NEW MEXICO	Sorghum	Ditch w/o PB	7,8	3.5	114	1	16.5	538	5
		Center pivot	7,8	2	112	48	10	561	239
	Alfalfa(south)	Ditch w/o PB	4-9	3.5	114	1	44.5	1450	13
		Center pivot	4-9	2	112	48	26	1457	623
	Alfalfa(north)	Ditch w/o PB	5-8	3.5	114	1	34	1108	10
		Center pivot	5-8	2	112	48	20	1121	479
	Cotton	Ditch w/o PB	6-8	3.5	114	1	27	880	8
		Side roll	6-8	2	100	36	16	801	288
		Big gun	6-8	2	130	66	16	1040	527
	Wheat	Ditch w/o PB	11-6	3.5	114	1	22.5	733	6
Center pivot		11-6	2	112	48	14	785	335	
Big gun		11-6	2	130	66	14	910	461	

Table 3. (continued)

Region	Crop	Irrigation System	Peak Requirement				Annual Requirement		
			Peak Period, Month*	Water Appli. IN/PL**	Energy Demand		Annual Water Appli. IN/YR	Annual Energy Demand	
					w/Ground-water KWH/PD	w/Surface Supply KWH/PD		w/Ground-water KWH/YR	w/Surface Supply KWH/YR
OKLAHOMA	Wheat	Ditch w/o PB	10,3,4	6	215	25	25	896	104
		Center pivot	10,3,4	4	238	111	16	952	444
	Sorghum	Ditch w/o PB	6-8	7	251	29	28	1004	116
		Center pivot	6-8	1.8	107	50	14	832	389
	Corn	Ditch w/o PB	6-8	7	251	29	28	1004	116
		Center pivot	6-8	1.8	107	50	14	832	389
	Alfalfa	Ditch w/o PB	4-9	4	143	17	31	1109	131
		Side roll	4-10	1.8	96	39	25.6	1366	556
	Peanuts	Hand move	7-9	3.5	187	76	14	748	304
	OREGON	Hay	Ditch w/o PB	4-9	6	67	15	42	471
Hand move			4-9	5	144	100	28	806	560
Corn		Ditch w/o PB	5-7	5	56	12	22	247	54
		Hand move	5-7	4	115	80	14	404	280
Potatoes		Ditch w/o PB	7-8	4	45	46	31	345	359
		Center pivot	7-8	3	104	105	20	693	701
Fruits-nuts-berries		Ditch w/o PB	5-9	6	67	15	37	415	91
		Hand move	5-9	4	115	80	27	776	540

Table 3. (continued)

Region	Crop	Irrigation System	Peak Period, Month*	Water Appli. IN/PD**	Peak Requirement		Annual Requirement			
					Energy Demand w/Ground-water KWH/PD	Energy Demand w/Surface Supply KWH/PD	Annual Water Appli. IN/YR	Annual Energy Demand w/Ground-water KWH/YR	Annual Energy Demand w/Surface Supply KWH/YR	
TEXAS	Sorghum	Ditch w/o PB	7-8	5	163	1	27	880	6	
		Center pivot	7-8	4	225	95	20	1125	475	
	Cotton	Ditch w/o PB	7-8	4	130	1	14	456	4	
		Center pivot	7-8	2	112	48	14	785	335	
	Wheat(forage)	Ditch w/o PB	10,12,4,5	4.5	147	1	27	882	6	
		Center pivot	10,12,4,5	4	225	95	18.5	1040	443	
	Wheat(no forage)	Ditch w/o PB	4-5	4.5	147	1	18	588	4	
		Center pivot	4-5	3.5	197	84	12.5	703	300	
	Corn	Ditch w/o PB	6-8	5	163	1	28	913	7	
		Center pivot	6-8	4	225	95	20.5	1152	488	
	WASHINGTON	Hay	Ditch w/o PB	4-10	6.5	180	19	52	1439	151
			Side roll	4-9	4.5	204	92	35.5	1610	727
Wheat		Ditch w/o PB	4-6	5	138	14	25	693	74	
		Side roll	4-6	3	136	61	15	681	306	
Fruits-nuts-berries		Ditch w/o PB	5-10	6	166	17	57	1577	163	
		Solid set	5-10	5	212	88	41	1735	721	
Vegetables		Ditch w/o PB	4-8	7	194	20	46	1275	134	
		Hand move	4-8	5	226	102	31	1403	633	

\* Preirrigation peak ignored.

\*\* PD = one-half month period

because of the energy required to apply the water in the field. This is true even though sprinkler irrigation application quantities are smaller. The peak demand for most crops occurs during the summer months, generally coinciding with the period of peak solar radiation.

#### Schedule Variability

The irrigation schedules in Appendix B refer to a specific acre of land. The pumping or water delivery schedule for a field or for the entire acreage of a given crop on a given farm would be smoother. For example, an irrigation schedule may show 6 inches of preplant irrigation water being applied during the first half of March. With surface irrigation, the 6 inches is actually applied to a given area in one day. However, the total acreage planted to that crop may be pre-irrigated over a six week period. Thus, while the schedules illustrate the differences among irrigation systems, extrapolation to larger areas should be done with care.

Irrigation schedules also vary due to several factors including

- a. field machine operations
- b. availability of water or manpower
- c. irrigation method
- d. soil characteristics
- e. rainfall and other environmental factors

Irrigation schedules must permit sufficient drying of the soil for field operations such as planting, cultivation, and harvest. Irrigation may not be applied during the period immediately preceding the desired planting date. This period may be one to three weeks depending on soils. Other operations, such as cultivation of row crops or harvest of alfalfa, also require soils be dry enough to permit traffic without excessive compaction.

Water or manpower availability can affect irrigation method and scheduling. Irrigation labor may assist with harvesting or other farm operations. Irrigation intervals or quantities may be affected by water limitations and conflicting demands for that water.

Irrigation methods also influence scheduling. Sprinkler irrigation methods permit efficient application of smaller quantities of water than do surface methods and thus may be used to make smaller, more frequent applications.

Heavier, loam and clay loam, soils can store more water than lighter or sandier soils. Lighter soils require smaller, more frequent waterings and surface irrigation may be inappropriate. Heavier soils may be efficiently irrigated using surface methods and irrigation can be less frequent.

Rainfall alters irrigation schedules in an unpredictable manner. Schedules for the southern and western areas reflect reliance on irrigation to meet total crop requirements. Northern and eastern-most areas cannot depend on rainfall, but use irrigation in a more supplemental manner. Temperature, relative humidity and wind affect evapotranspiration rates and thus the irrigation requirement.

## IRRIGATION AND CROPPING PRACTICES WHICH COULD MODIFY ENERGY DEMAND

Irrigation energy demand schedules, presented in Appendix B, are considered representative of current practices. Even where several crops are grown, pumping plants sized to meet peak irrigation requirements probably are under-utilized during much of the year, Figure 2. Changes in irrigation and/or cropping practices can modify energy demand schedules to reduce the peak requirement and/or alter the shape of the demand curve, Figure 3. Some potential irrigation and cropping changes which could reduce the peak energy demand or extend the irrigation season are discussed in the following sections.

I. Irrigation Practices to Reduce Peak Water Demand or Extend Irrigation Period

Irrigation equipment and methods differ with soil and topography, capital and facilities availability, management skills, labor availability and cost, and cropping patterns and permanence. For example, sandy soils and sloping areas are adapted to sprinkler irrigation. Sprinkler systems might also be used where labor is scarce or costly. However, sprinkler systems involve a large capital investment and require energy for water delivery. Thus, where land is level, soils are suitable and canals are in place, surface irrigation requires less energy and could be less costly.

One important factor in selecting the optimum irrigation system for a given application is the attainable irrigation efficiency. Irrigation efficiency is the amount of water which evaporates from and is transpired by the soil and plants divided by the amount of water applied to the field. Present efficiencies vary from 65-85 percent for sprinkler systems and from 50-70 percent for surface systems. Higher efficiencies are attainable; sprinkler irrigation is not necessarily more efficient than surface methods.

Methods for reducing peak irrigation energy demand include improvement of pumping plant and irrigation efficiencies and utilization of soil water storage

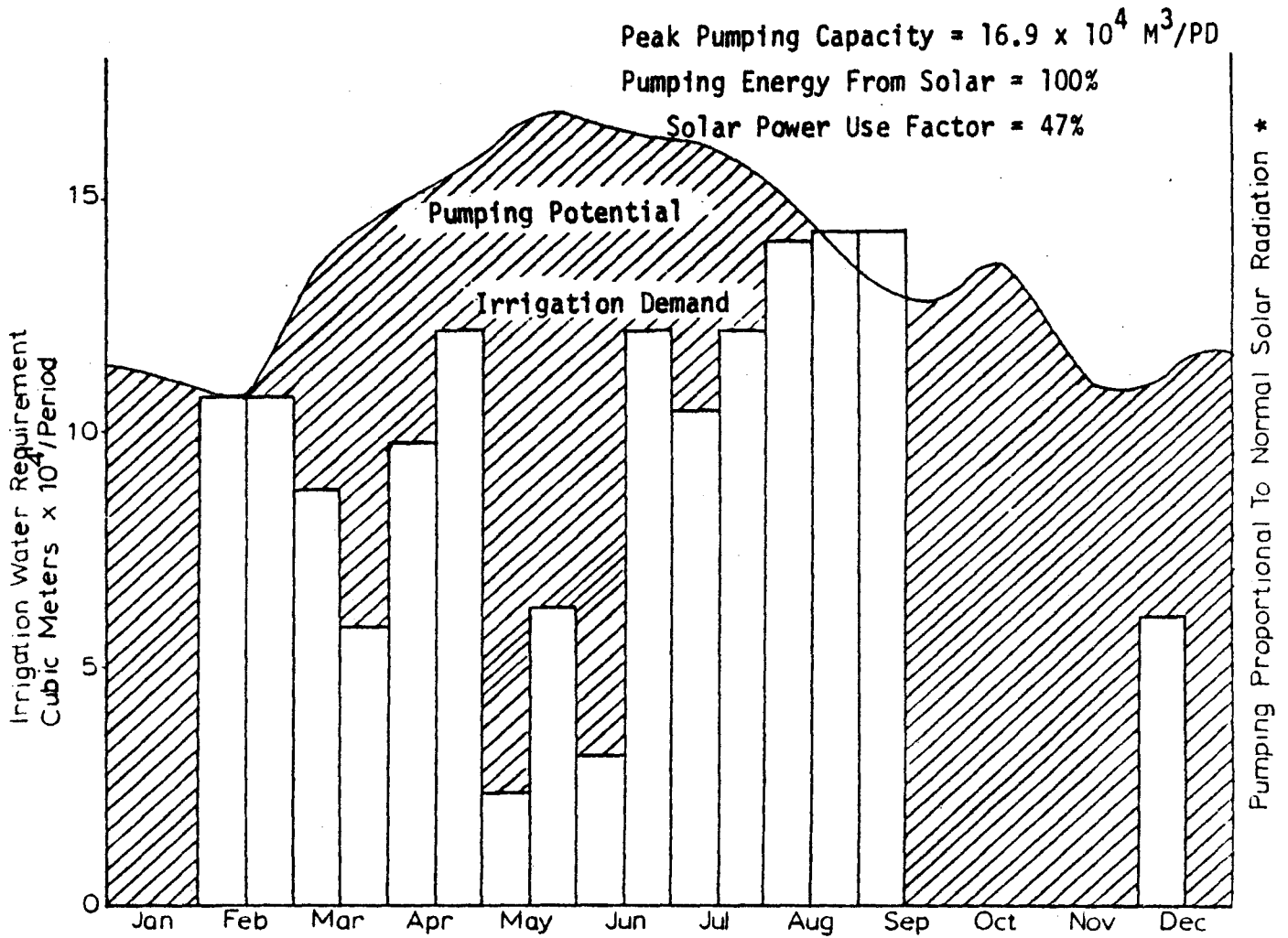


Figure 2. Solar powered pumping plant sized to approximately meet peak irrigation energy demand (Larson, 1977)

45 ha Cotton, 40 ha Barley, 15 ha Alfalfa.  
60% Irrigation Efficiency, Coolidge, AZ  
PD = One half Month Period

\* Aerospace (1974)



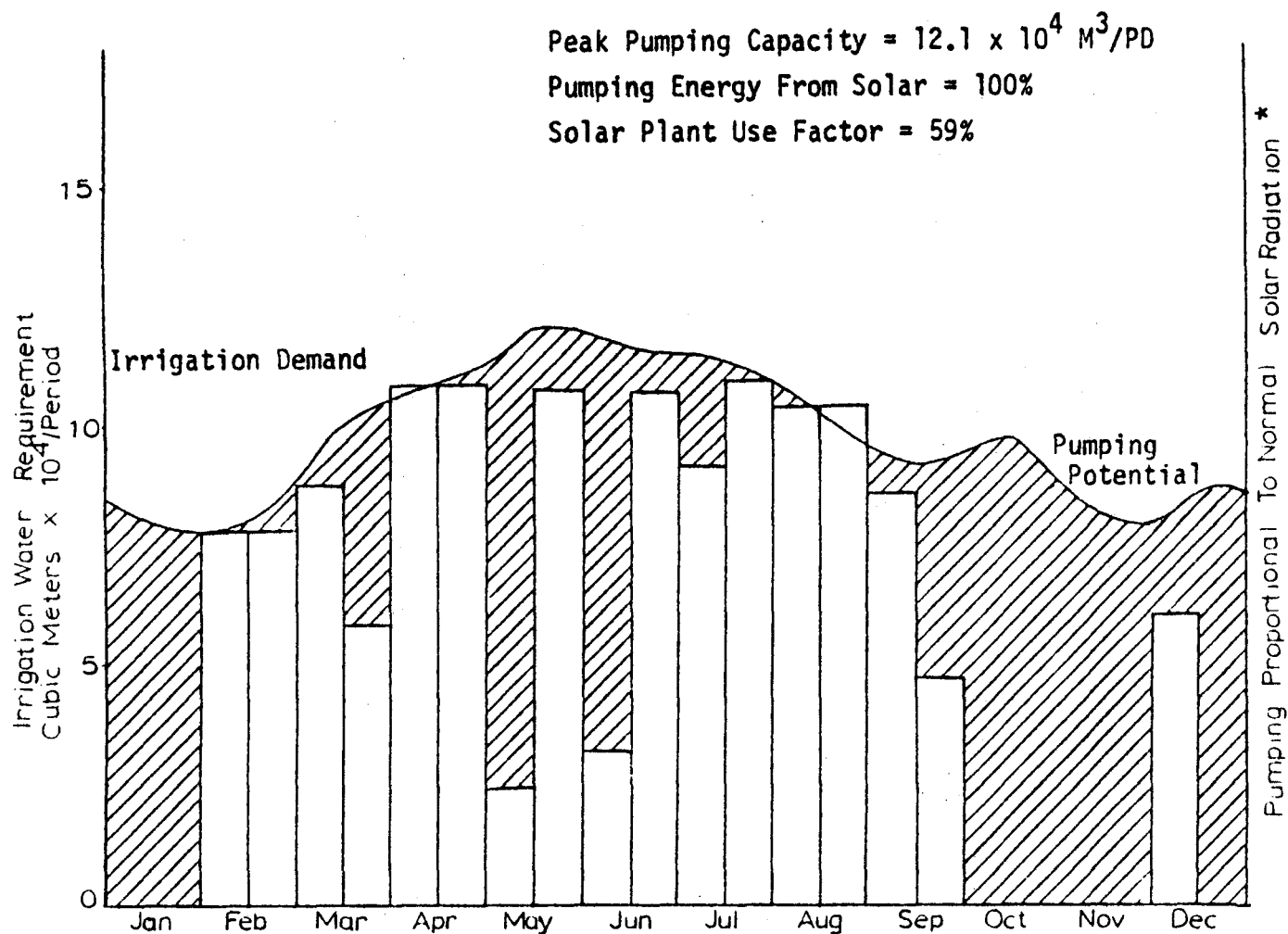


Figure 3. Irrigation demand modified by altering preirrigation, planting and crop termination dates (Larson, 1977).

45 ha Cotton (20 ha late planted), 40 ha Barley, 15 ha Alfalfa  
60% Irrigation Efficiency, Coolidge, AZ.

\* Aerospace (1974)

(Table 4). Irrigation schedules or periods can be modified somewhat, primarily through use of the soil as a storage media.

A. Improved Irrigation Management

Improved knowledge of crop water demand, soil water availability, and the amount of water applied in irrigation can be used to obtain higher irrigation efficiencies. Better irrigation scheduling and application are needed to effect the improvement. Required monitoring and control may be accomplished more readily with automated irrigation systems than with manual techniques. However, capital expenditure and energy use are probably greater with automated systems.

Scheduling irrigations to meet only crop evapotranspiration requirements can be accomplished with any irrigation technique. Soil moisture status can be determined by soil observation and with tensiometers, neutron probes or resistance blocks. The use of moisture sensor readings in conjunction with computer based irrigation scheduling models can provide sound, objective scheduling advice. The advice may be purchased and requires little capital expenditure, but does require:

- a. collection of soil moisture, rainfall and irrigation data,
- b. careful record keeping,
- c. access to computer facilities,
- d. qualified irrigation scheduling or management service, and
- e. flexibility in water delivery

for success (Fischbach, 1977).

Farmers are presently using computer based irrigation scheduling services largely because of the potential for saving water and dollars. In a Nebraska study, it was found that water consumption was decreased by approximately 38

Table 4. Irrigation practices which could modify energy demand schedules

Technique	Potential Effect	Energy Demand Effect	Applicability	
Improved Irrigation Mgmt	More precise application	Increase irrigation efficiency	Reduce magnitude	Now being used successfully
	Better scheduling	Increase irrigation efficiency	Reduce magnitude	Now being used successfully
Improved Pumping Plant Eff.	Properly matched equip.	Reduce pumping energy reqmt.	Reduce magnitude	Is done initially
	Better maintenance	Reduce pumping energy reqmt.	Reduce magnitude	Widely applicable and effective
Sprinkler System Changes	Lower pressure	Reduce water delivery energy reqmt.	Reduce magnitude	Is being developed. Need runoff control.
Surface Irrigation System Changes	Dead level	Increase irrigation efficiency	Reduce magnitude	Now being utilized successfully
	Return flow	Increase irrig. eff., requires energy	Reduce magnitude	Now being utilized. Effective on steeper slopes.
	Automation	Increase irrigation efficiency	Reduce magnitude	Has been tested. Can improve irrigation mgmt.
Drip Irrigation	More accurate water placement	Reduce magnitude	Limited to permanent plantings and other special situations by cost	
Programmed soil moisture depletion	Change irrigation timing	Alter schedule somewhat	Small alteration in schedule possible with heavier soils.	

percent (Fischbach et al., 1977). In Idaho, Jensen (1969) reported computer scheduling resulted in:

- a. reduced time to check soil moisture,
- b. more uniform crop growth, and
- c. better management of farm water supply.

Better control of irrigation applications must accompany improved scheduling guidance if maximum energy and watersavings are to be obtained. Sprinkler irrigation systems can be used to place the desired amount of water at the desired locations. However, energy is required to pressurize the system and move the water. New methods and equipment are being developed to decrease energy expenditure and more efficiently utilize water. Low pressure sprinkler systems are being developed and are described in a following section. Methods for more precise control of water application using improved surface irrigation systems are reported in another following section.

Water availability can severely limit irrigation scheduling changes which can be accomplished on a given farm or within an irrigation district. Increasing water capacity through construction of wells is costly and may be restricted in many areas. Pump to field delivery systems may be the limiting factor and modification would be expensive. Thus inflexible water supply system can handicap introduction of revised irrigation methods.

In summary, improved irrigation methods would reduce the magnitude of the energy demand curve. Scheduling improvements would also modify demand curve shape somewhat.

#### B. Improved Pumping Plant Efficiency

Proper selection and maintenance of wells, pumps and pump power units could reduce irrigation energy requirements substantially by increasing pumping plant efficiency. Nebraska tests indicated the average pumping plant was

operating at only 80 percent of a readily attainable field standard. A New Mexico study found a large portion of the tested pumping plants to be extremely energy inefficient.

Better matching of equipment to meet water availability, lift and system pressure characteristics would be required in some cases. However, adjustment and replacement of worn parts are the common solution to performance deterioration and repair expenditures can be highly beneficial. In a Kansas study, it was estimated that \$100 worth of repair service would save \$452-772 depending on the energy source. The payback period for pump replacement was estimated to be approximately four years.

The effect of increased pumping plant efficiency would be a decrease in the magnitude of the energy demand curve throughout the pumping period.

#### C. Sprinkler Irrigation System Modifications

Sprinkler irrigation systems can control water application rates and place water where desired. However, sprinkler systems commonly operate at 60-100 psi (1 psi = 2.31 ft. of head) thus requiring substantial amounts of energy for water delivery. Pressure requirements can be reduced greatly, perhaps to 20 psi. Problems associated with low pressure systems include 1) ponding and runoff on soils with a low intake rate and 2) poor water distribution patterns on fields with elevation variations. A method presently being evaluated uses lateral drop hoses and blocked furrows to surmount these problems.

The cost of changing from a high pressure system to a lower pressure one is modest. A Kansas study (Kramer et al. (1977)) estimated an investment of \$2000 would be required for center pivot system conversion. Another estimate indicated replacement of just sprinkler heads would cost only about \$200; an additional \$3000 would be required if pumping plant modifications were necessary.

Lower pressure sprinkler systems would permit energy savings even with small water savings over surface methods. The result would be a similarly shaped, lower magnitude energy demand schedule.

#### D. Drip Irrigation

Drip irrigation can yield water savings by placing water precisely where desired. However, irrigation efficiency may be no greater than with other irrigation systems if percolation losses from the plant root zone are not controlled. Drip systems also operate at very low pressure and thus require little energy for water delivery.

The tubes which permit water delivery only to desired sites are also the sources of the most serious drip irrigation system disadvantages. The tubes must lead to all water delivery points and are thus expensive especially since lifetimes can be relatively short. Emitters clog and tubes are blocked by roots and eaten by rodents. Interruptions in water supply are often noticed only when plants suffer water stress.

Because of cost and physical problems, drip irrigation is best adapted to permanent crops, such as tree crops, sandy soils, or steep terrain. Widespread application to field crop production is not foreseen.

#### E. Surface Irrigation System Modifications

Unlined canal ditches and siphon tubes are used to deliver water by gravity flow to the upper end of a slightly sloping field in many locales. Concrete lined ditches or gated pipe can reduce delivery losses, are widely used, and are economically beneficial.

Dead level surface irrigation is gaining acceptance in Arizona. In dead level irrigation, field slope is reduced to nearly zero to increase water application uniformity and eliminate runoff of water from the field. Uniformity is accomplished by delivering water rapidly enough to cover the field in a short

period of time. Soil intake opportunity is thus about equal for all parts of the field. Laser guided leveling equipment is becoming common; releveling costs can be \$100-200 per acre or more.

Where slopes are greater and water is delivered rapidly to wet all furrow or field area nearly simultaneously, water will probably run off or flow from the field. A tailwater return system can greatly increase irrigation efficiency, and save money, by returning runoff water to the irrigation water delivery system.

Automation of water delivery to the field can also be accomplished with surface irrigation methods. The investment in soil moisture sensors, automatically controlled pumps and flow valves, and flow meters may be repaid through energy cost savings. However, automated surface systems are largely experimental at present.

#### F. Programmed Soil Moisture Depletion

Deep, heavy (loam, clay loam) soils have a large capacity to store moisture for later removal and use by the crop. Irrigation schedules can be varied somewhat by taking advantage of this reservoir or buffer to reduce the peak demand. Where water availability strongly affects type of crop growth, as with cotton, this is probably not an appropriate method for altering energy demand.

#### II. Cropping Practices to Reduce Peak Water Demand or Extend Irrigation Period

Crops presently grown under irrigation include fiber, forage, grain, vegetable and fruit types. Cropping practices used and crops grown on a particular farm depend on climate, soils, water availability, market availability, economics, labor requirements and management experience and skills. Of these factors, only water and perhaps labor availability provide a direct incentive to limit peak water requirements. Economics could promote cropping changes; climate, soils, market and management abilities all provide practical limits to possible changes.

Some methods which could reduce peak water demand and increase the irrigation period are growth of different crops or crop varieties, changes in planting or irrigation termination dates, double cropping, minimum tillage and moisture stressing (Table 5).

#### A. Different Crop Varieties

Plant breeders have developed short season; early maturing; drought, insect and disease resistant varieties adapted to various soils, climates and growing methods. In each geographical area, the varieties presently grown are those which promise to maximize profit. Water limitations or higher water costs could result in development or selection of different varieties. Since varieties which thrive with less water or have a lower peak water demand might produce lower yields, alternative varieties must be carefully evaluated to determine relative profitability. Viable alternative varieties to reduce peak and total water demand are largely unknown at present.

#### B. Different Crops

The time distribution of water requirements, peak water demand and length of irrigation season are different for different crops, Figure 4. For example in Arizona, wheat is grown in the winter and harvested in May and has relatively low peak and total water requirements. Cotton is planted in early spring and often irrigated until mid-September. It has relatively high peak and total requirements. Lettuce is grown in fall and spring and has a relatively low water requirement. Alfalfa, a perennial, has a long irrigation period and high water requirement.

The crop mix on a given farm depends on agronomic, economic and personnel factors. A change affecting the relative importance of these factors, as for example a change in water cost, could cause a shift to other crops. Until recently, energy cost or availability has not been a major factor in determining the selection of crops grown on farms.



Table 5. Cropping practices which could modify energy demand schedules.

Technique		Potential Effect	Energy Demand Effect	Applicability
Different Crop Varieties		Reduce water demand. Modify crop season.	Reduce magnitude and alter schedule somewhat	Lower water use varieties which maintain yield must be found
Different Crops	Multi-season crop mix	Crop mix can modify irrigation schedule	Reduce peak and increase season length	Marketing problems with some crops. Used in southern areas. Economic decision.
	Desert crops	Special crops will use less water	Reduce magnitude and alter schedule	Crop management information lacking. Market development needed.
Double Cropping		Less water use per crop. Alter season.	Reduce peak and increase irrigation period.	Used in southern areas.
Alter Growing Period	Alter planting date	Move irrigation period. Reduce peak.	Reduce peak and increase irrigation period.	Possible with some crops in southern areas. Yield may decrease.
	Terminate irrigation early.	Alter schedule.	Reduce peak and total demand	Yield may decrease.
Moisture Stressing		Reduce magnitude and alter water use schedule.	Reduce peak demand.	Yield will probably decrease.
Alter Tillage Methods		Reduce irrigation reqmt.	Reduce magnitude	Small benefit, if any.

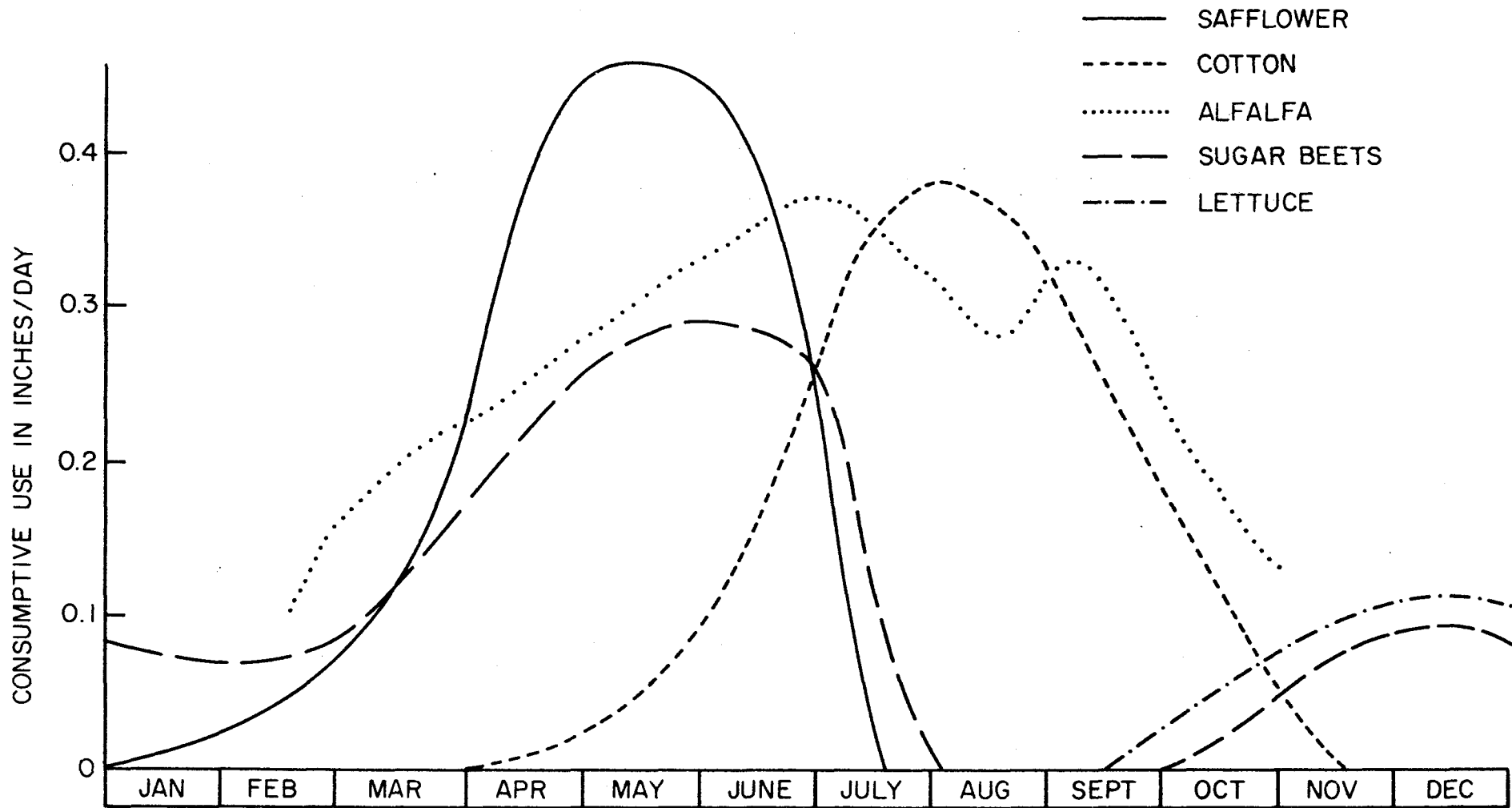


Figure 4. Consumptive use curves for some crops grown in Central Arizona (Erie, French and Harris, 1965).

Crops requiring less water or requiring water at different times of the year are available. For example in Arizona, sorghum, sugar beets, safflower, onions, melons and pecans are some alternative crops which are grown at present. Cultivation of different crops requires different management skills and is subject to successful marketing at a profit. Sugar beets and vegetables may be difficult to market; sorghum and other alternative crops may not be profitable. Desert plants such as guayule and jojoba may require only small amounts of irrigation when grown commercially. It is not known whether growth of these plants would substantially modify the shape of the irrigation demand curve, however.

In many irrigated areas, but particularly in southern Arizona and California, different crops may be selected to lower the peak water requirement and extend the pumping period. In fact, annual water demand curves of nearly the same shape as the expected solar radiation plot have been obtained by proper crop selection in paper studies conducted in Arizona. These studies demonstrated that matching of pumping energy requirements and solar power plant output is possible through crop selection. The studies did not include economic analyses to determine crop mixes which are expected to be most profitable. Vegetable crops included in the study may not be marketable at present. Their cultivation certainly could not be expanded sufficiently to provide for a slack time power demand over a broad agricultural area. Thus, modification of crop mix to alter the irrigation pumping schedule is possible in the southern irrigated region. However, economic and marketing realities limit this option.

### C. Double Cropping

Double cropping, growing two crops per year on a given piece of land, involves selection of compatible crops and possible alteration or shortening of the normal growing periods. It can increase the period of pumping and shift and decrease the peak energy demand. Double cropping (and growing three crops in

two years) is widely used in the southern irrigated areas. Crops include cotton, vegetables and grains. Although individual crop yields may be lower, double cropping can reduce risk and increase annual profit per acre.

#### D. Planting and Termination Dates

Irrigation water demand is dependent on crop evapotranspiration requirements. Evapotranspiration rates, in turn, vary with stage of crop growth and environmental conditions. Thus, a change in crop planting and/or termination date could permit a change in the irrigation schedule. Climate limits the amount of change. In northern irrigated areas, many crops must be planted as soon as spring weather permits to allow for maturation before fall frosts kill the plants. Even in southern areas, yield reductions result from growing crops during non-optimum periods.

Crops are commonly planted as early as possible so the potential change is to later planting. Later planting might not only defer the peak demand period, but also reduce the magnitude of that demand. For example in California, late planting of corn (about June 15) will result in slightly decreased total water usage, perhaps from 28 inches to 22 inches, and shift peak consumption from July to August. In southern Arizona, cotton may be planted from early April to mid-May with little difference in yield. Planting over the entire period could reduce the peak water requirement.

Final irrigation dates for some crops can also be varied somewhat without adversely affecting yields. Cotton irrigation has been terminated in early August in Arizona trials without reducing yields significantly.

Staggering of planting dates and irrigation termination dates is one means for modifying irrigation schedules. Growing season requirement of crops must be carefully considered to maintain productivity and profitability.

#### E. Tillage Practices

Tillage alters soil structure and incooperates plant residues. In time,

these changes affect soil moisture storage capacity and water infiltration into and drainage and evaporation from the soil. Thus tillage can change the availability of applied water. Some studies have indicated that minimum tillage practices can increase water utilization and thus save water. There is no consensus on this point, however.

#### F. Moisture Stressing

In areas experiencing water shortages, crops are given less than sufficient water to meet evapotranspiration requirements. The moisture stress is scheduled for growth periods least affecting production, but yields generally are reduced. Limited water is used to irrigate the crops with the highest marginal return on investment. For example with cotton and alfalfa production, cotton might be irrigated regularly in July while alfalfa irrigations are minimal. Perhaps only water or energy shortages will force this type of irrigation practice to be utilized.

## IRRIGATION COSTS

Cost, rather than water or energy per se, generally determines the irrigation system utilized on a given farm. Irrigation costs depend on a number of variables, including well depth, amount of water applied and the price of energy. The format used to report costs is given in Table 6. Capital costs include investment expenditures for the well and pumping plant and for the irrigation facilities and equipment. Operating expenses encompass labor, maintenance, energy and field preparation costs. In this analysis, all costs are defined on a per acre basis. All systems except center pivot are based on 160 acre operating capacity; center pivot is based on 130 acres.

Irrigation network costs, labor cost and irrigation preparation expenditures are considered constant from region to region. Well and pump costs, repair costs and energy expenses are varied to reflect regional differences.

Capital Costs

Network costs refer to all hardware expenses associated with an irrigation system. For sprinkler systems, these include sprinkler heads, pipe, motor, valves and other necessary equipment. For surface systems, the largest network component is the cost of grading. Network costs, estimated by Fereres et al (1978), include the rate of depreciation of the equipment and the interest on the money spent in buying the equipment. Taxes and insurance are also included in the network cost determination. Equipment lifetimes used for depreciation purposes are:

<u>Item</u>	<u>Years of life</u>
- pipeline	20
- movable sprinklers	10
- permanent sprinklers	20
- drip systems	10
- aluminum tubing	10

Table 6. System Cost Categorization

IRRIGATION SYSTEM	IRRIGATION SYSTEM
COST CATEGORIES	COSTS
I. CAPITAL EXPENDITURES	
A. Total Irrigation Network Costs	
* Annual Cost	
B. Total Well and Pump Costs	
* Annual Cost	
C. Unused Land	
* Annual Cost	
-----	
II. OPERATION AND MAINTENANCE	
A. Labor	
B. Repairs	
C. Energy	
D. Irrigation Preparation	

<u>Item</u>	<u>Years of life</u>
- steel pipe 14 gauge, buried	8
- steel pipe 12 gauge, buried	15
- steel pipe	10
- steel pipe, galvanized	15
- asbestos-cement pipe	25
- plastic pipe	25+
- concrete pipe	20
- sprinkler heads, metal	7 - 8
- sprinkler heads, plastic	5
- hose	10
- emitters	10
- sprinkler pipe, permanent	10
- sprinkler pipe, movable	5

The interest charge was estimated to be 8% of the average investment cost.

Taxes and other overhead charges were estimated to cost 2% of the original purchase price.

Pumping plant costs vary with well depth, pumping lift and system pressure requirements. Therefore, well and pump expenditures vary from region to region and also within regions. These costs were extrapolated from Hathorn (1977). Regional well depths and pumping lifts are presented in Table 7. Equipment lifetimes and salvage values were assumed, for depreciation purposes, to be:

<u>Item</u>	<u>Life</u>	<u>Salvage value, percent of original value</u>
well	25	0%
pump assembly	15	3%
power unit	25	3%
Bowls	3	0%



Table 7. Well Depth and Pumping Lift

State	Well Depth (ft.)	Lift (ft)
ARIZONA	1200	375
CALIFORNIA		
Sacramento Valley	90	53
San Joaquin Delta	--	89
Upper San Joaquin	200	123
Lower San Joaquin	250	181
Imperial and Coachella	--	124
Central Coast	150	103
COLORADO	200	120
HAWAII	300	250
IDAHO	300	252
KANSAS	250	225
NEBRASKA	160	103
NEW MEXICO	300	250
OKLAHOMA	400	275
OREGON	200	84
TEXAS	400	250
WASHINGTON	200	212

Interest costs were assumed to be 8.5% of the average investment cost. Taxes were estimated to be 2.4% of the initial capital outlay. Insurance was computed on an average investment in the power assembly of \$4.72 per \$100 valuation.

Conventional center pivot systems cover a circular area of about 125-130 acres. As compensation for the unirrigated corners of the square field, an unused land cost has been added to the annual cost of using center pivot systems. This cost is based on 0.23 acres of unused land per acre at a valuation of \$2000 per acre.

#### Variable Costs

Labor costs are presented for each system type and are based on a \$4.50 per hour rate including fringe benefits. The amount of labor used per system was estimated by Fereres et al. (1978).

Repair costs are a function of both irrigation system type and water application quantities. Sprinkler mechanisms obviously require more repairs than surface systems and drip irrigation systems tend to require even more maintenance than sprinklers.

The primary factors used in estimating energy costs were the price of energy and the amount of water applied. Fuel prices were based on published materials and expert opinions. Electricity was assumed to be the major source of energy for all regions except New Mexico, Texas, Kansas and Oklahoma. Natural gas was assumed to be the dominant fuel type in these states. The amount of water applied represents an average amount applied to all crops within a region. This amount was varied for each technique in order to compensate for differences in water application efficiencies. The assumed efficiencies are presented in Table 1.

The following formula was used to calculate the energy costs:

$$\text{Energy Cost,} \\ \$/\text{Acre ft. of water} = \frac{\text{KWH (or MCF) required to lift 1 acre ft. 1 ft.} * \text{Total feet of head} * \text{ENERGY PRICE}}{\text{PUMPING PLANT EFFICIENCY}}$$

For electricity the formula is:

$$\text{Energy Cost,} \\ \$/\text{Acre ft. of water} = \frac{1.024 * \text{Total feet of head} * \text{Electricity Price}}{.66}$$

For natural gas:

$$\text{Energy cost,} \\ \$/\text{Acre ft.} = \frac{0.00318 * \text{Total feet of head} * \text{Natural gas price}}{0.154}$$

Preparation of the field before each growing season is required with surface systems. Preparation might include building earthen dams or retrenching unlined ditches. Preparation costs range from \$10-\$25 per acre, depending upon which surface system is used (Fereres et al. 1978).

#### Cost Data

Irrigation costs are presented for the primary irrigation methods used in each region in Appendix C. The costs, computed for areas using groundwater, are given on a per acre basis. A cost summary listing fixed costs, energy costs, other variable costs and total costs is presented for comparison purposes in Table 8.

Total costs are generally lowest for the gated pipe without pumpback irrigation system. Some energy is required for water delivery and capital expenditure is higher. However, more efficient irrigation and lower labor costs make gated pipe less costly than open ditch methods. Pumpback systems involve more equipment and thus higher capital and operating costs.

Table 8. Annual Irrigation Costs, \$/AC

Region	Irrigation Method	Fixed Costs	Energy Costs	Other Variable Costs	Total Cost
ARIZONA	Ditch w/o PB	74	100	63	237
	Ditch w/PB	78	85	73	236
	Center pivot	173	92	18	283
	Side roll	117	90	40	247
CALIFORNIA, Sacramento	Ditch w/o PB	31	14	62	107
	Pipe w/o PB	48	14	32	94
	Hand move	54	32	69	155
	Side roll	65	32	40	137
CALIFORNIA, San Joaquin Delta	Ditch w/o PB	37	22	62	121
	Pipe w/o PB	54	20	32	106
	Hand move	54	36	68	158
	Side roll	65	36	40	141
CALIFORNIA, Upper San Joaquin	Pipe w/o PB	60	31	32	123
	Pipe w/PB	68	31	39	138
	Hand move	61	48	69	178
	Solid set	113	42	34	189
CALIFORNIA, Lower San Joaquin	Pipe w/o PB	62	49	32	143
	Pipe w/PB	70	47	40	157
	Hand move	61	64	69	194
	Side roll	72	64	40	176
	Drip	111	38	52	201
CALIFORNIA, Imperial Coachella	Ditch w/o PB	43	46	63	152
	Ditch w/PB	47	45	73	165
CALIFORNIA, Central Coast	Pipe w/o PB	53	20	32	105
	Pipe w/PB	61	20	40	121
	Hand move	55	32	68	155
	Side roll	65	32	40	137
	Drip	102	16	53	171
COLORADO	Ditch w/o PB	43	18	62	123
	Pipe w/o PB	60	16	32	108
	Center pivot	120	29	17	166
	Side roll	70	25	39	134
HAWAII	Ditch w/o PB	45	101	74	210
	Drip	116	67	52	235
IDAHO	Ditch w/o PB	45	20	62	127
	Center pivot	133	20	17	170
	Hand move	70	20	68	158
	Side roll	80	20	39	139

Table 8. (continued)

Region	Irrigation Method	Fixed Costs	Energy Costs	Other Variable Costs	Total Cost
KANSAS	Ditch w/o PB	45	11	61	117
	Pipe w/o PB	62	9	31	102
	Center pivot	123	12	17	152
	Side roll	73	12	39	124
NEBRASKA	Ditch w/o PB	36	18	61	115
	Pipe w/o PB	53	16	31	100
	Center pivot	112	29	17	158
	Hand move	55	26	68	149
NEW MEXICO	Ditch w/o PB	45	19	61	125
	Pipe w/o PB	62	17	31	110
	Center pivot	123	21	17	161
	Side roll	72	20	39	131
OKLAHOMA	Ditch w/o PB	47	13	61	121
	Pipe w/o PB	64	11	31	106
	Center pivot	125	14	17	156
	Side roll	75	13	39	127
OREGON	Ditch w/o PB	37	7	61	105
	Center pivot	112	14	17	143
	Hand move	54	12	68	134
	Side roll	64	12	39	115
TEXAS	Ditch w/o PB	47	16	61	124
	Center pivot	125	18	17	160
	Hand move	65	17	68	150
	Side roll	164	17	39	220
WASHINGTON	Ditch w/o PB	45	11	62	118
	Center pivot	133	13	17	163
	Hand move	71	12	68	151
	Side roll	81	12	40	133

Mechanical move sprinkler systems are generally intermediate in cost between less expensive open ditch and gated pipe systems and higher cost hand-move sprinkler and drip irrigation methods. The greater cost for mechanical move sprinkler systems is largely due to higher capital and repair expenses. For center pivots, this includes unused land cost. Drip irrigation systems require even greater investment and higher repair costs. Hand move systems have a high labor requirement.

The energy cost difference among systems can be substantial. Drip irrigation is most energy conservative since water use and delivery pressure are both low. High pressure sprinkler irrigation systems have a high energy demand, higher than some less efficient but lower pressure methods. In higher lift areas, efficient water use has a greater effect on energy cost. However, energy rates must be considerably higher to be the major factor in determining the least cost irrigation method.

## OTHER ON-FARM ENERGY USERS

Farming in the United States is a very specialized business. Many farmers grow cotton, grain and soybeans for cash sale. A lesser number grow specialty crops such as vegetables, while still others grow feed for livestock or poultry production. A large variety of tasks to use solar power plant output probably do not exist on many farms today. The economies of scale and management requirements are two reasons for specialization; lifestyle and personal desires are other causes.

Nearly all farms have residences with heating and electrical demand. Most farms growing grain harvested in the fall have a need for energy to dry the grain for storage. Those farms with livestock or poultry operations have a need for electrical energy for lighting and for feeding and waste removal. Thermal energy also is required for heating of water and space. Crop processing is largely done off the farm. However, processing may be done at a nearby location by a farmer-owned plant. Greenhouses and fish growth are two related enterprises which could operate in conjunction with irrigated crop production. The following sections present energy demand data for residences, other potential on-farm applications and farm-allied enterprises.

### Farm Home Energy Requirement

The data for electrical and thermal energy requirements for farm homes are listed in Appendix D, Table D1 and D2. The Arizona electrical schedule was reported by the Arizona Public Service Company (1978). The California electrical data represent the most comprehensive and significant source of all the housing data. The California Energy Resources Conservation and Development Commission (1978) reported on the electrical billings by major utility companies for the various counties in California. Table D1 summarized these data for the various California regions. The electrical data for New Mexico, Oklahoma, Texas, Nebraska and Kansas were the average of data reported by Williams, et. al (1975), Development Planning and Research Associates (1977) and Smith, et. al (1977). The electrical data for Washington, Idaho, Oregon and Colorado were reported by USDA-ERS (1974), with supplementary data on air conditioning energy use reported by Development Planning and Research Associates (1977). The Hawaii data were reported by Metcalf and Eddy (Pacific) Associates (1978).

The thermal energy requirements for all states except California and Arizona were based on data reported by USDA-ERS (1974). These data were reported as total energy requirements for home heating including natural gas, LP gas, fuel oil, and coal. Added to this data for thermal energy was an average value for water heating, developed from data reported by Development Planning and Research Associates (1977), Smith, et. al (1977), and Williams, et. al (1975).

Thermal energy requirements for homes in California were developed from utility records of natural gas as reported by the California Energy Resources Conservation and Development Commission (1978). The Arizona home thermal energy requirements were assumed to be equal to the thermal energy requirement for homes in Imperial Valley, California, as reported by the California Energy Resources Conservation and Development Commission (1978).



### Energy Use in Livestock Production Facilities

The thermal and electrical energy used for livestock production activities was determined for the Western United States included in this study. The primary source of data was the "Energy and U. S. Agriculture 1974 Data Base" (USDA-FEA, 1977). This source included energy use by the various agricultural commodity groups, by fuel type, and for the months of the year. Numerous other data sources were also used to supplement, modify, and substantiate the USDA data, thus arriving at the final estimates of energy used for livestock production.

Tables 9 and 10 summarize the livestock production energy uses, with the complete set of data included in Appendix D.

#### Beef Feedlots

The majority of the beef feedlot energy use data was based on recent surveys and studies (Williams and Altobello, 1978; Lipper, et al., 1976; Cervinka, et al., 1974; and Ward, et al., 1977). Some Western United States feedlots (Arizona, California, Colorado, Kansas, New Mexico, Oklahoma, Texas) are large drylots of 5000 or more head of cattle. The thermal energy use is primarily natural gas used for feed processing, and the electrical energy is used for grain and hay grinding in the feedmill. In the other states which use less thermal energy, the feeding operations are smaller, and use mostly electricity for feed processing.

#### Milk Cows

Electrical energy use for dairy operations is used primarily for milk cooling, milking machine operation and lighting. In some areas, primarily the Northwestern states where electricity is cheaper, electricity may also be used for water heating. The thermal energy uses include water heating and space heating, for which natural gas and LP gas are the primary fuels. In addition to the USDA-FEA data base (1977), other references utilized include Williams, et al (1975);

Table 9. Summary of electrical energy use by livestock production activities in the Western States.

State	<u>(KWH<sub>e</sub>/Head)*</u>														
	Beef Feedlot			Milk Cows			Swine			Beef-Cow/Calf Beef Stockers			Sheep		
	Annual	Max.	Min.**	Annual	Max.	Min.	Annual	Max.	Min.	Annual	Max.	Min.	Annual	Max.	Min.
Arizona	78	3.25	3.25	750	42	23	30	2	1	1.84	.08	.07	.56	.06	0
California	85	3.54	3.54	454	24	16	28	2	1	5.74	.40	.11	.72	.03	.03
Colorado (confinement swine)	52	3.0	2.0	402	18	15	15 (36)	1.25 (1.5)	0 (1.5)	.72	.03	.03	.34	.05	0
Hawaii	78	4.0	3.0	434	20	16	16.1	1.4	.29	1.66	.07	.06	-	-	-
Idaho	194	9.0	7.0	440	20	17	15	1.25	0	11.4	.70	.30	-	-	-
Kansas (confinement swine)	56	2.33	2.33	364	17	13	12.48 (36)	1.0 (1.5)	.02 (1.5)	.72	.03	.03	-	-	-
Nebraska (confinement swine)	54	3	2	374	17	14	15 (36)	1.25 (1.5)	0 (1.5)	.72	.03	.03	1.2	.05	.05
New Mexico	65	2.7	2.7	434	20	16	35.78	3.0	.80	1.66	.07	.06	.24	.01	.01
Oklahoma	56	2.33	2.33	376	18	14	14.2	1.0	.30	1.6	.07	.06	.24	.01	.01
Oregon	226	11	8	471	21	18	15	1.25	0	14.1	1.1	.2	1.44	.06	.06
Texas	65	2.7	2.7	388	18	14	32	2	1	1.44	.06	.06	.24	.01	.01
Washington	216	9.0	9.0	496	23	19	15	1.25	0	11.6	.80	.30	.72	.03	.03

\* For beef feedlot, milk cows, beef cow/calf, and sheep, data are energy use per head average inventory during the year; and for swine, data are energy use per head produced.

\*\* Max. and min. refer to the maximum and minimum energy use per 2 week period during the year

Table 10. Summary of thermal energy use by livestock production activities in the Western States.

State	<u>(KWH<sub>t</sub>/Head)*</u>														
	Beef Feedlot			Milk Cows			Swine			Beef-Cow/Calf Beef Stockers			Sheep		
	Annual	Max.	Min.**	Annual	Max.	Min.	Annual	Max.	Min.	Annual	Max.	Min.	Annual	Max.	Min.
Arizona	390	16.25	16.25	356	18	14	-	-	-	-	-	-	-	-	-
California	192	8.0	8.0	330	17	13	-	-	-	20.88	.87	.87	-	-	-
Colorado (confinement swine)	216	9	9	334	17	13	(36)	(3.8)	(0)	-	-	-	-	-	-
Hawaii	-	-	-	342	17	13	-	-	-	-	-	-	-	-	-
Idaho	4.6	.3	.10	276	15	10	-	-	-	16.8	.7	.7	-	-	-
Kansas (confinement swine)	288	12.0	12.0	304	16	11	(36)	(3.8)	(0)	-	-	-	-	-	-
Nebraska (confinement swine)	-	-	-	400	31	9	(36)	(3.8)	(0)	-	-	-	-	-	- 50
New Mexico	312	13	13	380	19	15	-	-	-	-	-	-	-	-	-
Oklahoma	288	12	12	324	17	12	-	-	-	-	-	-	-	-	-
Oregon	-	-	-	289	16	11	-	-	-	40.2	1.7	1.7	-	-	-
Texas	312	13	13	304	15	12	-	-	-	-	-	-	-	-	-
Washington	5.0	.3	.1	216	12	8	-	-	-	24	1	1	-	-	-

\* For beef feedlots, milk cows, beef cow/calf, stockers, and sheep, data are energy use per head average inventory during the year; for swine, data are energy use per head produced.

\*\* Max. and min. refer to the maximum and minimum energy use per 2 week period during the year.

Jewel, et al (1976); USDA-FEA (1977a), Sams(1977), Anschutz and Lipper (1976); and Fairbank, et al (1978).

### Swine

Electrical energy for swine in most states is used for operating heat lamps and other lights to keep the newborn pigs warm immediately following birth. In Southwestern states, additional electricity is used for ventilation during the summer months. In Colorado, Kansas, and Nebraska, additional data were presented to show the energy use schedule for the newer confinement swine facilities. These data, shown in Tables 9 and 10, were based on information reported by USDA-FEA (1977b). Confinement swine facilities employ complete environmental control, which include electricity for ventilation and thermal energy (natural gas or LP gas) for space heating. Both conventional and confinement swine facilities are used in these three states, so both sets of data are presented. The USDA-FEA data base (1977), USDA-FEA (1977b), Midwest Plan Service (1972), Deshazer, et al (1976), Murphy, et al (1977), Development Planning and Research Associates (1977), and Williams (1978) were the references contributing to the swine data.

### Beef Cow/Calf, Beef Stockers, and Sheep

The energy used for these animal types was small in comparison to the beef feedlots, milk cows, and swine. Electricity is used primarily for stock tank heaters, water pumping, and some limited feed processing. These animals are raised primarily on pastures, and thus stationary electrical and thermal energy needs are low. All the data for these animal types was taken from the USDA-FEA data base (1977), and divided by the average head of inventory stock per year.

### Energy Use in Poultry Production Facilities

The thermal and electrical energy used for poultry production activities is summarized in Tables 11 and 12. The complete set of energy data for poultry production is in Appendix D. The primary source of data for poultry was again the USDA-FEA data base (1977). Numerous other data sources were also used to supplement, modify, and substantiate the data base, thus arriving at the final estimate of energy used for poultry production.

### Pullets

Pullet production involves raising the baby female chicks to become replacement hens for egg laying production. Electrical energy is used primarily for fan ventilation of the brooding houses and lighting. Thermal energy use for pullets is considerable, and is used primarily for space heating to keep the brooding area at 90-100° F. LP gas, natural gas, and fuel oil were the energy sources that supply thermal energy for pullet raising. In addition to the USDA-FEA data base (1977), Cervinka, et al (1974), USDA-FEA (1977c), Rogers, et al (1976), and Williams (1978) were used as references to check the data base.

### Eggs

Energy for egg laying facilities is primarily electricity for ventilation, light, and space cooling. Some thermal energy is also used, in the form of LP gas or natural gas, for water and space heating. Water heating is needed primarily for egg washing. The summary energy data in Tables 11 and 12 for eggs indicate considerable variation among the various states. This variation was found to be because of different technologies in egg laying. At one end of the spectrum, the egg-laying house may be simply a shade with slatted sides, and the only energy used is for lighting and some supplemental ventilation. At the other end, the egg-laying house may be a closed and insulated structure,

Table 11. Summary of electrical energy use by poultry production activities in the Western United States.

State	Poultry (KWH <sub>e</sub> /1000 head)*											
	Pullets			Eggs			Broilers			Turkeys		
	Annual	max.**	min.	Annual	max.	min.	Annual	max.	min.	Annual	max.	min.
Arizona	52.2	2.5	1.2	3370	198	116	-	-	-	-	-	-
California	54.0	3.2	1.5	3955	247	130	175	10	6	455	43	2
Colorado	48.9	3.0	1.5	3365	205	118	-	-	-	379	34	2
Hawaii	46.2	3.5	1.4	1773	111	60	-	-	-	-	-	-
Idaho	41.40	3.4	1.4	2907	166	105	-	-	-	-	-	-
Kansas	46.0	3.0	1.0	2485	140	88	196	32	0	412	31	4
Nebraska	58.2	5.3	0	2454	140	86	212	37	0	405	32	2
New Mexico	43.4	2.8	1.4	2894	186	91	-	-	-	-	-	-
Oklahoma	50.4	5.4	0	2323	151	74	160.8	9.3	3.8	608	43	8
Oregon	44.6	3.0	.3	3589	232	113	205.30	10.0	6.7	298	28	1
Texas	48.4	3.0	1.5	1975	127	66	140.0	8.0	4.0	583	40	8
Washington	47.4	3.0	1.0	3736	244	119	209.6	11.5	5.6	302	29	1.2

\* For eggs, energy use is per 1000 head of layers average inventory; for pullets, broilers, and turkeys, energy use is per 1000 head produced per year.

\*\* Max. is maximum energy use per 2 week period, and min. is minimum energy use per 2 week period.

Table 12. Summary of thermal energy use by poultry production activities in the Western United States.

Poultry (KWH<sub>t</sub>/1000 head)\*

State	Pullets			Eggs			Broilers			Turkeys		
	Annual	max.	min.	Annual	max.	min.	Annual	max.	min.	Annual	max.	min.
Arizona	1620	150	1	1081	46	44	-	-	-	-	-	-
California	4448	424	6 <sup>o</sup>	1640	70	67	1845	144	27	14,103	1330	78
Colorado	4476	334	39	1080	45	45	-	-	-	13,374	1367	46
Hawaii	312	39	0	856	40	27	-	-	-	-	-	-
Idaho	3891	262	37	408	17	17	-	-	-	-	-	-
Kansas	3160	354	13	376.8	15.7	15.7	1229	242	0	8,319	897	41
Nebraska	3464	355	11	503	28	17	1321	245	0	11,363	1157	51
New Mexico	2909	214	21	888	37	37	-	-	-	-	-	-
Oklahoma	4096	612	5	1672	73	67	2926	305	9	11,224	1003	64
Oregon	2750	56	197	864	36	36	1472	99	32	9,182	863	48
Texas	3703	357	17	1406	64	45	1604	178	8	10,544	919	58
Washington	2806	226	47	816	36	33	1476	103	26	9,254	865	67

\* For eggs, energy use is per 1000 head of layers average inventory; for pullets, broilers, and turkeys energy use is per 1000 head produced per year.

\*\* Max. is maximum energy use per 2 week period, and min. is minimum energy use per 2 week period.

with complete environmental control of air temperature and humidity requiring large amounts of electrical and thermal energy. In fact, Williams (1978) found both types of structures at one egg laying operation. The data, shown in Tables 11 and 12 and in Appendix D, are averages for the states considering all the different types of poultry structures employed. USDA-FEA (1977c), Cervinka, et. al (1974), Rogers, et. al. (1976), and Williams (1978) were references utilized in addition to the data base. These references included data for all the types of poultry.

### Broilers

Broilers (also called "fryers" in some states) are not produced in all the Western States. In those states where broilers are grown, the production facilities are mostly large, mechanized, with complete environmental control. Electrical energy is needed for fan ventilation, lights, and feed processing. Large quantities of thermal energy in the form of LP gas or natural gas are needed for space heating the young chicks. Broilers are grown from chicks to slaughter size in about 9 weeks; thus the production facilities will have a turnover rate of 5 times per year. The energy data reported is based on 1,000 head of broilers produced per year; thus a typical broiler house of 1,000 head capacity will actually produce 5,000 broilers per year.

### Turkeys

Turkey production and thus energy use follows a particular seasonal pattern due to the traditional consumption of turkeys in the U.S. at the Thanksgiving and Christmas holiday periods. The complete production cycle begins in December and January when the eggs are laid. The turkey chicks are then hatched in March and April, and brooded in confinement housing until about May and June. After that, the turkeys are grown to full size in open range feedlots, so they are ready to be slaughtered in October and November. The majority of the electrical and thermal energy is used during the first six months of the year,



with the peak for thermal energy occurring in March, and the peak for electrical energy occurring in May and June. The electrical energy is needed for lights, for ventilation and for feed processing. Thermal energy in considerable quantities is needed for space heating to hatch eggs and brood the chicks. The turkey energy data is based on 1,000 head of turkeys raised per year; usually two crops of turkeys are raised per year in the same facilities. Thus, a turkey facility that will hold 1,000 head, will be able to raise 2,000 head per year.

### Crop Drying

Crop drying requires a large amount of thermal energy and a lesser amount of electrical energy. Crop drying occurs primarily in autumn since most crops harvested in late spring and summer are field dried to storage moisture content. While commercial drying of crops is widespread, a substantial amount of the crop drying takes place on-farm.

On-farm crop drying schedules were derived from data provided by USDA-FEA (1977). The data included the total amount of energy, by fuel type, required to dry corn, grain sorghum, and rice in selected states. Also included were:

- 1) the amount of each crop (in thousands of bushels) dried both on-farm and commercially; and
- 2) the amount of energy (by fuel type) utilized in crop drying.

Liquid petroleum (LP) gas and electricity were the two principal fuel types used in on-farm drying of corn, grain sorghum, and rice in the states within the study area. Liquid petroleum gas, representing total thermal energy used in drying in these states, was converted to an equivalent number of KWH. Energy in KWH (thermal) and KWH (electrical) per bushel of crop dried was then calculated from the data provided on number of bushels dried on-farm (Table D51).

The 1974 data base (USDA-FEA, 1977) information also permitted identification of the crop-drying season in each state. An estimate of the percentage of each crop dried per two-week interval during the period August through November is shown in Table D52. The amount of thermal and electrical energy required to dry an acre of corn, grain sorghum, and rice in each state was then estimated by multiplying  $KWH_t/bu$  and  $KWH_e/bu$  for each crop by the respective crop yields obtained from a USDA published source, Tables D54 and D55. The thermal and electrical energy requirements for drying an acre of corn, grain sorghum and rice were assumed constant over time.

The on-farm crop drying schedules, summarized in Table 13, indicate a wide range in values of  $KWH_t$  and  $KWH_e$  needed to dry an acre of a given crop. For example, the energy required to dry grain sorghum ranges from a low of 66  $KWH_t/acre$  and 5.5  $KWH_e/acre$  in Colorado to a high of 151  $KWH_t/acre$  and 17.2  $KWH_e$  in Arizona. These differences may reflect fluctuations in energy requirements per bushel, but are primarily the result of wide variations in per-acre yield from state to state.

Table 13. Crop drying energy requirement.

State	Crop	Energy Requirement		Percent of Total Crop Dried Per Two-Week Interval									
		KWH <sub>t</sub> /AC	KWH <sub>e</sub> /AC	Aug.		Sept.		Oct.		Nov.			
				1	2	1	2	1	2	1	2		
ARIZONA	Sorghum	151	17.2	30	30	20	20						
CALIFORNIA	Sorghum	140	15.8	30	30	20	20						
	Rice	196	36.6			4	4	46	46				
COLORADO	Corn	353	8.8			25	25	25	25				
	Sorghum	66	5.5			5	5	30	30	15	15		
KANSAS	Corn	306	7.9					35	35	15	15		
	Sorghum	78	8.8			5	5	25	25	20	20		
NEBRASKA	Corn	281	7.7					35	35	15	15		
	Sorghum	75	6.3			20	20	30	30				
OKLAHOMA	Sorghum	70	6.8	10	10	20	20	20	20				
TEXAS	Sorghum	101	9.9	30	30	20	20						

### Cotton Gins

Cotton gins require thermal and electrical energy during the fall and early winter seasons when irrigation demand is small, Table D55. However, cotton gins may be farmer or independently owned, adjacent to or distant from the served farms. The gins generally serve many farmers and may have a peak energy demand equal to that of several farms. The small gins of Table D gin some 10,000 acres of cotton and can require as much electrical energy as does deep well irrigation of 500 acres.

Thus cotton gins do provide a possible use for available off-season energy. Interconnection and an agreement with farm energy suppliers would be needed since gins are not one farm sized enterprises located on that farm.

### Greenhouses

Greenhouses have a relatively uniform annual electrical energy requirement to operate lights, equipment and ventilation fans. The demand is somewhat larger in summer when ventilation or evaporative cooling is used to reduce greenhouse temperatures, Table D56. A large quantity of thermal energy is used for greenhouse heating in the winter, even in Arizona.

Greenhouse and outdoor agricultural production seldom coexist in one farming operation. Greenhouse operation is a specialized agricultural business requiring different operating procedures and management skills. Since a greenhouse could use excess thermal energy from the solar power plant in winter, the concept of operating a greenhouse in conjunction with the plant is promising. Power plant construction and siting plans might include consideration of a joint venture with a local greenhouse business.

APPENDIX A

IRRIGATED ACREAGES BY REGION AND METHOD

REGION: ARIZONA

WATER SOURCE: 60 PERCENT GROUND WATER

40 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	COTTON	ALFALFA	WHEAT	SORGHUM	
CENTER PIVOT	11000	4400	0	2200	17600
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0
HAND MOVE	0	0	0	0	0
SLIDE ROLL OR TOW LINE	0	9000	10000	0	19000
SOLID SET OR PERMANENT	0	0	0	0	0
TOTAL SPRINKLER	<u>11000</u>	<u>13400</u>	<u>10000</u>	<u>2200</u>	<u>36600</u>
OPEN DITCH NO PUMP BACK SYSTEM	291500	140600	154900	44000	631000
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	220000	55000	0	38500	313500
GATED PIPE NO PUMP BACK	27500	0	0	5500	33000
GATED PIPE WITH PUMP BACK	0	0	8200	0	8200
TOTAL SURFACE	<u>539000</u>	<u>195600</u>	<u>163100</u>	<u>88000</u>	<u>885700</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>550000</u>	<u>209000</u>	<u>173100</u>	<u>90200</u>	<u>1022300</u>

TABLE A2

REGION: CALIFORNIA SACRAMENTO VALLEY

WATER SOURCE: 26 PERCENT GROUND WATER

74 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP					TOTAL ACREAGE ALL CROPS
	IRRPASTURE	RICE	ALFALFA	ALMONDS	SUGARBEETS	
CENTER PIVOT	0	0	0	0	0	0
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0	0
R I N D : HAND MOVE	20200	0	8400	71900	12100	112600
K I N K : SIDE ROLL OR TOW LINE	1000	0	3400	0	2500	6900
L I N E : SOLID SET OR PERMANENT	0	0	0	1800	0	1800
TOTAL SPRINKLER	<u>21200</u>	<u>0</u>	<u>11800</u>	<u>73700</u>	<u>14600</u>	<u>121300</u>
OPEN DITCH NO PUMP BACK SYSTEM	72300	15700	24200	100	26300	138600
S U P P L Y : OPEN DITCH WITH PUMP BACK SYSTEM	0	0	0	0	4600	4600
F A C E : GATED PIPE NO PUMP BACK	246000	298400	82100	4700	26300	657500
C A T E : GATED PIPE WITH PUMP BACK	43400	0	14500	100	4600	62600
TOTAL SURFACE	<u>361700</u>	<u>314100</u>	<u>120800</u>	<u>4900</u>	<u>61800</u>	<u>803300</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>382900</u>	<u>314100</u>	<u>132600</u>	<u>78600</u>	<u>76400</u>	<u>934600</u>

TABLE A3

REGION: CALIFORNIA SAN JOAQUIN DELTA

WATER SOURCE: 37 PERCENT GROUND WATER

63 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP					TOTAL ACREAGE ALL CROPS
	IRRPASTURE	ALFALFA	SUGARBEETS	TOMATOES	GRAPES	
CENTER PIVOT	0	0	0	0	0	0
S P P I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0	0
HAND MOVE	6800	1800	3300	3000	0	14900
SIDE ROLL OR TOW LINE	500	200	300	500	0	1500
SOLID SET OR PERMANENT	400	0	0	0	2200	2600
TOTAL SPRINKLER	<u>7700</u>	<u>2000</u>	<u>3600</u>	<u>3500</u>	<u>2200</u>	<u>19000</u>
OPEN DITCH NO PUMP BACK SYSTEM	42900	17500	15600	9500	2100	87600
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	0	0	0	0	0	0
GATED PIPE NO PUMP BACK	78600	56900	28700	30900	39500	234600
GATED PIPE WITH PUMP BACK	21400	13100	7800	7100	0	49400
TOTAL SURFACE	<u>142900</u>	<u>87500</u>	<u>52100</u>	<u>47500</u>	<u>41600</u>	<u>371600</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	100	0	700	0	800
TOTAL DRIP	<u>0</u>	<u>100</u>	<u>0</u>	<u>700</u>	<u>0</u>	<u>800</u>
TOTAL ALL SYSTEMS	<u>150600</u>	<u>89600</u>	<u>55700</u>	<u>51700</u>	<u>43800</u>	<u>311400</u>



TABLE A4

REGION: CALIFORNIA UPPER SAN JOAQUIN

WATER SOURCE: 32 PERCENT GROUND WATER

68 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP					TOTAL ACREAGE ALL CROPS
	IRRPASTURE	ALFALFA	ALMONDS	GRAPES	COTTON	
CENTER PIVOT	0	0	0	0	0	0
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0	0
R I N K L E R : HAND MOVE	5400	15800	11300	0	26400	58900
S P R I N K L E R : SIDE ROLL OR TOW LINE	700	700	0	0	900	2300
S P R I N K L E R : SOLID SET OR PERMANENT	3100	0	25700	8800	0	37600
S P R I N K L E R : TOTAL SPRINKLER	<u>9200</u>	<u>16500</u>	<u>37000</u>	<u>8800</u>	<u>27300</u>	<u>98800</u>
S U R F A C E : OPEN DITCH NO PUMP BACK SYSTEM	0	9300	0	0	6400	15700
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	0	37100	0	0	19200	56300
S U R F A C E : GATED PIPE NO PUMP BACK	266700	92700	71700	95200	9600	535900
S U R F A C E : GATED PIPE WITH PUMP BACK	14000	92700	3800	0	28700	139200
S U R F A C E : TOTAL SURFACE	<u>280700</u>	<u>231800</u>	<u>75500</u>	<u>95200</u>	<u>63900</u>	<u>747100</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	200	0	0	200
D R I P : TOTAL DRIP	<u>0</u>	<u>0</u>	<u>200</u>	<u>0</u>	<u>0</u>	<u>200</u>
TOTAL ALL SYSTEMS	<u>289900</u>	<u>248300</u>	<u>112700</u>	<u>104000</u>	<u>91200</u>	<u>846100</u>

TABLE A5

REGION: CALIFORNIA LOWER SAN JOAQUIN

WATER SOURCE: 57 PERCENT GROUND WATER

43 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRFIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	COTTON	SMALLGRAIN	ALFALFA	GRAPES	
CENTER PIVOT	0	0	0	0	0
S P R I N K L E R	0	0	0	0	0
HAND MOVE	149000	25200	44500	1900	220600
SIDE ROLL OR TOW LINE	17800	1400	1500	0	20700
SOLID SET OR PERMANENT	0	0	0	21000	21000
TOTAL SPRINKLER	<u>166800</u>	<u>26600</u>	<u>46000</u>	<u>22900</u>	<u>262300</u>
OPEN DITCH NO PUMP BACK SYSTEM	97900	76100	42000	0	216000
S U R F A C E	163100	126800	83900	0	373800
GATED PIPE NO PUMP BACK	130500	101400	104900	305600	642400
GATED PIPE WITH PUMP BACK	261000	202800	188900	0	652700
TOTAL SURFACE	<u>652500</u>	<u>507100</u>	<u>419700</u>	<u>305600</u>	<u>1884900</u>
D R I P	0	0	0	1000	1000
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>1000</u>	<u>1000</u>
TOTAL ALL SYSTEMS	<u>819300</u>	<u>533700</u>	<u>465700</u>	<u>329500</u>	<u>2148200</u>

REGION: CALIFORNIA, IMPERIAL COACHELLA

WATER SOURCE: 2 PERCENT GROUND WATER

98 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP					TOTAL ACREAGE ALL CROPS
	ALFALFA	SMALLGRAIN	SUGARBEETS	SORGHUM	LETTUCE	
CENTER PIVOT	0	0	0	0	0	0
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0	0
R I N K L E R : HAND MOVE	0	0	0	0	0	0
S I D E : SIDE ROLL OR TOW LINE	0	0	0	0	0	0
S O L I D : SOLID SET OR PERMANENT	0	0	0	0	0	0
TOTAL SPRINKLER	0	0	0	0	0	0
OPEN DITCH NO PUMP BACK SYSTEM	8000	5100	3100	2300	2000	20500
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	8000	5100	3100	2300	2000	20500
GATED PIPE NO PUMP BACK	128500	82200	48800	36900	32000	328400
GATED PIPE WITH PUMP BACK	16100	10300	6100	4600	4000	41100
TOTAL SURFACE	160600	102700	61100	46100	40000	410500
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0	0
TOTAL DRIP	0	0	0	0	0	0
TOTAL ALL SYSTEMS	160600	102700	61100	46100	40000	410500

TABLE A7

REGION: CALIFORNIA CENTRAL COAST

WATER SOURCE: 98 PERCENT GROUND WATER

2 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP			TOTAL ACREAGE ALL CROPS
	LETTUCE	ALFALFA	DRY BEANS	
CENTER PIVOT	0	0	0	0
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0
R I N N G : HAND MOVE	5300	31400	7300	44000
S I D E : SIDE ROLL OR TOW LINE	0	7900	0	7900
S O L I D : SOLID SET OR PERMANENT	0	0	0	0
<u>TOTAL SPRIKLER</u>	<u>5300</u>	<u>39300</u>	<u>7300</u>	<u>51900</u>
<u>OPEN DITCH NO PUMP BACK SYSTEM</u>	<u>3500</u>	<u>0</u>	<u>1100</u>	<u>4600</u>
<u>OPEN DITCH WITH PUMP BACK SYSTEM</u>	<u>3500</u>	<u>0</u>	<u>1100</u>	<u>4600</u>
<u>GATED PIPE NO PUMP BACK</u>	<u>56300</u>	<u>0</u>	<u>17400</u>	<u>73700</u>
<u>GATED PIPE WITH PUMP BACK</u>	<u>7000</u>	<u>0</u>	<u>2200</u>	<u>9200</u>
<u>TOTAL SURFACE</u>	<u>70300</u>	<u>0</u>	<u>21800</u>	<u>92100</u>
<u>DRIP, TRICKLE, OR BUBBLE</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>TOTAL DRIP</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>TOTAL ALL SYSTEMS</u>	<u>75600</u>	<u>39300</u>	<u>29100</u>	<u>144000</u>

TABLE A8

REGION: COLORADO

WATER SOURCE: 45 PERCENT GROUND WATER

55 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRREGATED ACREAGE BY CROP			TOTAL ACREAGE ALL CROPS
	CORN	HAY	SMALLGRAIN	
CENTER PIVOT	212500	50000	130000	392500
S P R I N K L E R : BIG GUN TRAVELER	0	0	2000	2000
HAND MOVE	0	10000	2000	12000
SIDE ROLL OR TOW LINE	0	20000	5000	25000
SOLID SET OR PERMANENT	8500	0	0	8500
TOTAL SPRINKLER	<u>221000</u>	<u>80000</u>	<u>139000</u>	<u>440000</u>
OPEN DITCH NO PUMP BACK SYSTEM	297300	477000	77000	851300
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	45700	0	4000	49700
GATED PIPE NO PUMP BACK	114400	40000	50000	204400
GATED PIPE WITH PUMP BACK	171500	0	30000	201500
TOTAL SURFACE	<u>628900</u>	<u>517000</u>	<u>161000</u>	<u>1306900</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>849900</u>	<u>597000</u>	<u>300000</u>	<u>1746900</u>

REGION: HAWAII

WATER SOURCE: 60 PERCENT GROUND WATER

40 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	SUGARCANE	PINEAPPLES	VEGETABLES	PAPAYA	
CENTER PIVOT	0	0	0	0	0
S P R I N K L E R : MECHANICAL MOVE	0	35000	0	0	35000
MECHANICAL MOVE	0	1000	800	0	1800
HAND MOVE	0	0	0	0	0
SIDE ROLL OR TOW LINE	0	0	0	0	0
SOLID SET OR PERMANENT	5500	0	300	0	5800
TOTAL SPRINKLER	<u>5500</u>	<u>36000</u>	<u>1100</u>	<u>0</u>	<u>42600</u>
OPEN DITCH NO PUMP BACK SYSTEM	93500	0	0	0	93500
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	0	0	0	0	0
GATED PIPE NO PUMP BACK	0	0	0	0	0
GATED PIPE WITH PUMP BACK	0	0	0	0	0
TOTAL SURFACE	<u>93500</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>93500</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	11000	0	500	1000	12500
TOTAL DRIP	<u>11000</u>	<u>0</u>	<u>500</u>	<u>1000</u>	<u>12500</u>
TOTAL ALL SYSTEMS	<u>110000</u>	<u>36000</u>	<u>1600</u>	<u>1000</u>	<u>148600</u>

TABLE A10.

REGION: IDAHO

WATER SOURCE: 29 PERCENT GROUND WATER

71 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	ALFALFA	GRAIN	POTATOES	SUGARBEETS	
CENTER PIVOT	40600	68600	45200	11800	166200
S P P I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0
HAND MOVE	302200	267800	122700	32700	725400
SIDE ROLL OR TOW LINE	133700	156500	76000	17000	383200
SOLID SET OR PERMANENT	4300	800	51600	6600	63300
TOTAL SPRINKLER	<u>480800</u>	<u>493700</u>	<u>295500</u>	<u>58100</u>	<u>1338100</u>
OPEN DITCH/GATED PIPE NO PUMP BACK SYSTEM	1378800	483900	29200	69500	1961400
S U R F A C E : OPEN DITCH/GATED PIPE WITH PUMP BACK SYSTEM	9600	0	0	0	9600
TOTAL SURFACE	<u>1388400</u>	<u>483900</u>	<u>29200</u>	<u>69500</u>	<u>1971000</u>
D R I P : DRIP, TRICKLE, OF BUBBLE	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>1869200</u>	<u>977600</u>	<u>324700</u>	<u>137600</u>	<u>3309100</u>

REGION: KANSAS

WATER SOURCE: 95 PERCENT GROUND WATER

5 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	CORN	WHEAT	SORGHUM	ALFALFA	
CENTER PIVOT	424900	143600	136600	91400	796500
S P R I N K L E R : BIG GUN TRAVELLER	10400	500	3000	2000	15900
HAND MOVE	0	0	0	0	0
SIDE ROLL OR TOE LINE	16300	5500	5200	3500	30500
SOLID SET OR PERMANENT	200	0	0	500	700
TOTAL SPRINKLER	<u>451800</u>	<u>149600</u>	<u>144800</u>	<u>97400</u>	<u>843600</u>
OPEN DITCH NO PUMP BACK SYSTEM	308800	10500	98800	66500	484600
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	0	0	0	0	0
GATED PIPE NO PUMP BACK	860000	291000	275100	185100	1611200
GATED PIPE WITH PUMP BACK	0	0	0	0	0
TOTAL SURFACE	<u>1168800</u>	<u>301500</u>	<u>373900</u>	<u>251600</u>	<u>2095800</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>1620600</u>	<u>451100</u>	<u>518700</u>	<u>349000</u>	<u>2939400</u>



TABLE A12

REGION: NEBRASKA

WATER SOURCE: 85 PERCENT GROUND WATER

15 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP		TOTAL ACREAGE ALL CROPS
	CORN		
CENTER PIVOT	1341300		1341300
S P R I N K L E R : BIG GUN TRAVELLER	36300		36300
R I N K L E R : HAND MOVE	15600		15600
S P R I N K L E R : SIDE ROLL OR TOW LINE	316400		316400
S P R I N K L E R : SOLID SET OR PERMANENT	3200		3200
S P R I N K L E R : TOTAL SPRINKLER	<u>1712800</u>		<u>1712800</u>
S U R F A C E : OPEN DITCH NO PUMP BACK SYSTEM	657800		657800
S U R F A C E : CATED PIPE NO PUMP BACK	1999200		1999200
S U R F A C E : UNDER GROUND WITH VALVES	1001300		1001300
S U R F A C E : TOTAL SURFACE	<u>3658300</u>		<u>3658300</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0		0
D R I P : TOTAL DRIP	<u>0</u>		<u>0</u>
TOTAL ALL SYSTEMS	<u>5371100</u>		<u>5371100</u>

REGION: NEW MEXICO

WATER SOURCE: 70 PERCENT GROUND WATER

30 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	SOFGHUM	ALFALFA	COTTON	WHEAT	
CENTER PIVOT	13400	8200	1100	5300	28000
S P R I N K L E R : BIG GUN TRAVELLER	8400	2700	2100	5300	18500
HAND MOVE	0	0	0	0	0
SIDE ROLL OR TOW LINE	3300	2700	2100	0	8100
SOLID SET OR PERMANENT	0	0	0	0	0
<b>TOTAL SPRINKLER</b>	<b>25100</b>	<b>13600</b>	<b>5300</b>	<b>10600</b>	<b>54600</b>
OPEN DITCH NO PUMP BACK SYSTEM	125500	108800	90600	84000	408900
S U R F A C E : OPEN DITCH WITH PUMP BACK SYSTEM	0	0	0	0	0
GATED PIPE NO PUMP BACK	16700	13600	10700	10500	51500
GATED PIPE WITH PUMP BACK	0	0	0	0	0
<b>TOTAL SURFACE</b>	<b>142200</b>	<b>122400</b>	<b>101300</b>	<b>94500</b>	<b>460400</b>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
<b>TOTAL DRIP</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL ALL SYSTEMS</b>	<b>167300</b>	<b>136000</b>	<b>106600</b>	<b>105100</b>	<b>515000</b>

TABLE A14

REGION: OKLAHOMA

WATER SOURCE: 79 PERCENT GROUND WATER

21 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP					TOTAL ACREAGE ALL CROPS
	WHEAT	SORGHUM	CORN	ALFALFA	PEANUTS	
CENTER PIVOT	34800	27300	13100	18600	0	93800
S P R I N K L E R : BIG GUN TRAVELER	0	0	0	0	4300	4300
HAND MOVE	5200	43000	0	7400	11900	57500
SIDE ROLL/TOW LINE	15300	22800	0	32800	11100	52000
SOLID SET OR PERMANENT	0	0	0	0	0	0
TOTAL SPRINKLER	<u>55300</u>	<u>93100</u>	<u>13100</u>	<u>58800</u>	<u>27300</u>	<u>247600</u>
TOTAL SURFACE	174500	100300	81300	28900	0	385000
S U R F A C E : TOTAL SURFACE	<u>174500</u>	<u>100300</u>	<u>81300</u>	<u>28900</u>	<u>0</u>	<u>385000</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>229800</u>	<u>193400</u>	<u>94400</u>	<u>87700</u>	<u>27300</u>	<u>632600</u>

TABLE A15

REGION: OREGON

WATER SOURCE: 13 PERCENT GROUND WATER

87 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	HAY	VEGETABLES	POTATOES	FRUIT-NUTS	
CENTER PIVOT	22100	1100	36000	0	59200
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0
HAND MOVE	204000	57800	3700	27500	293000
SIDE ROLL OR TOW LINE	156800	16200	9400	0	182400
SOLID SET OR PERMANENT	1800	1000	17700	5100	25600
TOTAL SPRINKLER	<u>384700</u>	<u>76100</u>	<u>66800</u>	<u>32600</u>	<u>560200</u>
OPEN DITCH/GATED PIPE NO PUMP BACK SYSTEM	680700	13400	0	9000	703100
S U R F A C E : OPEN DITCH/GATED PIPE WITH PUMP BACK SYSTEM	10000	0	0	0	10000
TOTAL SURFACE	<u>690700</u>	<u>13400</u>	<u>0</u>	<u>9000</u>	<u>713100</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>1075400</u>	<u>89500</u>	<u>66800</u>	<u>41600</u>	<u>1273300</u>

TABLE A16

REGION: TEXAS

WATER SOURCE: 80 PERCENT GROUND WATER  
20 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS	
	SORGHUM	COTTON	WHEAT	CORN		
S P R I N K L E R	CENTER PIVOT	146000	11900	105100	103100	366100
	HAND MOVE	113000	86700	81300	79800	360800
	OTHER WHEEL ROLL	179000	137200	128800	126400	571400
	DRAG LINE	33000	25300	23700	23300	105300
	<u>TOTAL SPRINKLER</u>	<u>471000</u>	<u>261100</u>	<u>338900</u>	<u>332600</u>	<u>1403600</u>
S U R F A C E	TOTAL SURFACE	1340600	1027700	965000	946500	4279800
	<u>TOTAL SURFACE</u>	<u>1340600</u>	<u>1027700</u>	<u>965000</u>	<u>946500</u>	<u>4279800</u>
D R I P	DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
	<u>TOTAL DRIP</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	<u>TOTAL ALL SYSTEMS</u>	<u>1811600</u>	<u>1288800</u>	<u>1303900</u>	<u>1279100</u>	<u>5683400</u>

TABLE A17

REGION: WASHINGTON

WATER SOURCE: 13 PERCENT GROUND WATER

87 PERCENT SURFACE WATER

IRRIGATION TECHNIQUES	IRRIGATED ACREAGE BY CROP				TOTAL ACREAGE ALL CROPS
	HAY	GRAIN	FRUIT-NUTS	VEGETABLES	
CENTER PIVOT	25100	76000	0	200	101300
S P R I N K L E R : BIG GUN TRAVELLER	0	0	0	0	0
HAND MOVE	131200	20100	21900	17800	191000
SIDE ROLL OR TOW LINE	152300	130500	0	15200	298000
SOLID SET OR PERMANENT	1900	0	75200	7000	84100
TOTAL SPRINKLER	<u>310500</u>	<u>226600</u>	<u>97100</u>	<u>40200</u>	<u>674400</u>
OPEN DITCH/GATED PIPE NO PUMP: BACK SYSTEM	348100	93700	50600	51400	543800
S U R F A C E : OPEN DITCH/GATED PIPE WITH PUMP BACK SYSTEM	4000	700	0	0	4700
TOTAL SURFACE	<u>352100</u>	<u>94400</u>	<u>50600</u>	<u>51400</u>	<u>548500</u>
D R I P : DRIP, TRICKLE, OR BUBBLE	0	0	0	0	0
TOTAL DRIP	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ALL SYSTEMS	<u>662600</u>	<u>321000</u>	<u>147700</u>	<u>91600</u>	<u>1222900</u>

APPENDIX B

WATER AND ENERGY USE SCHEDULES

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: COTTON  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 375

TABLE B1

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330	360	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	6.00 P	292	*****												
	2	0.00	6.00 P	292	*****												
APRIL	1	.15	0.00	0													
	2	.33	6.00	292	*****												
MAY	1	.68	0.00	0													
	2	1.28	6.00	292	*****												
JUNE	1	1.95	6.00	292	*****												
	2	3.30	6.00	292	*****												
JULY	1	4.65	7.00	341	*****												
	2	5.84	7.00	341	*****												
AUG	1	5.70	7.00	341	*****												
	2	5.60	7.00	341	*****												
SEPT	1	4.35	6.00	292	*****												
	2	3.30	0.00	0													
OCT	1	2.25	0.00	0													
	2	1.25	0.00	0													
NOV	1	.57	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		41.20	70.00	3408													

P DESIGNATES A PREIRRIGATION.



IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: COTTON  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 375

TABLE B2

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	40	80	120	160	200	240	280	320	360	400	440	480
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	4.00 P	289	*****											
	2	0.00	4.00 P	289	*****											
APRIL	1	.15	0.00	0												
	2	.33	3.00	217	*****											
MAY	1	.68	0.00	0												
	2	1.28	5.00	362	*****											
JUNE	1	1.95	0.00	0												
	2	3.30	6.00	434	*****											
JULY	1	4.65	6.00	434	*****											
	2	5.84	6.00	434	*****											
AUG	1	5.70	5.00	362	*****											
	2	5.60	5.00	362	*****											
SEPT	1	4.35	5.00	362	*****											
	2	3.30	0.00	0												
OCT	1	2.25	0.00	0												
	2	1.25	0.00	0												
NOV	1	.57	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		41.20	49.00	3545												

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA

TABLE B3

CROP: COTTON

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 40

FEET OF LIFT: 5

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	6.00 P	6	:	*****	:	:	:	:	:	:	:	:	:	:
	2	0.00	6.00 P	6	:	*****	:	:	:	:	:	:	:	:	:	:
APRIL	1	.15	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.33	6.00	6	:	*****	:	:	:	:	:	:	:	:	:	:
MAY	1	.68	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.28	6.00	6	:	*****	:	:	:	:	:	:	:	:	:	:
JUNE	1	1.95	6.00	6	:	*****	:	:	:	:	:	:	:	:	:	:
	2	3.30	6.00	6	:	*****	:	:	:	:	:	:	:	:	:	:
JULY	1	4.65	7.00	7	:	*****	:	:	:	:	:	:	:	:	:	:
	2	5.84	7.00	7	:	*****	:	:	:	:	:	:	:	:	:	:
AUG	1	5.70	7.00	7	:	*****	:	:	:	:	:	:	:	:	:	:
	2	5.60	7.00	7	:	*****	:	:	:	:	:	:	:	:	:	:
SEPT	1	4.35	6.00	6	:	*****	:	:	:	:	:	:	:	:	:	:
	2	3.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	2.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.57	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		41.20	70.00	70	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: COTTON  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B4

ENERGY REQUIREMENTS

TIME	WATER EQUIPMENT INCHES		PUMPING ENRGY REQUIREMENT KUH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRFIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	4.00 P	98	*****												
	2	0.00	4.00 P	98	*****												
APRIL	1	.15	0.00	0													
	2	.33	3.00	74	*****												
MAY	1	.68	0.00	0													
	2	1.28	5.00	123	*****												
JUNE	1	1.95	0.00	0													
	2	3.30	6.00	147	*****												
JULY	1	4.65	6.00	147	*****												
	2	5.84	6.00	147	*****												
AUG	1	5.70	5.00	123	*****												
	2	5.60	5.00	123	*****												
SEPT	1	4.35	5.00	123	*****												
	2	3.30	0.00	0													
OCT	1	2.25	0.00	0													
	2	1.25	0.00	0													
NOV	1	.57	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		41.20	49.00	1203													

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: ALFALFA  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 375

TABLE B5

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (2)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	1.81	5.00	244												
MARCH	1	2.75	5.00	244												
	2	3.22	5.00	244												
APRIL	1	3.54	5.00	244												
	2	4.02	5.00	244												
MAY	1	4.61	5.00	244												
	2	5.36	6.00	292												
JUNE	1	5.34	6.00	292												
	2	5.48	6.00	292												
JULY	1	5.48	6.00	292												
	2	5.30	6.00	292												
AUG	1	4.55	6.00	292												
	2	4.43	6.00	292												
SEPT	1	4.98	6.00	292												
	2	4.29	6.00	292												
OCT	1	3.18	0.00	0												
	2	2.48	0.00	0												
NOV	1	1.65	0.00	0												
	2	1.65	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		74.32	84.00	4092												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: ALFALFA  
 TECHNIQUE: SIDE ROLL  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 375

TABLE B6

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	35	70	105	140	175	210	245	280	315	350	385	420
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	1.81	4.00	265												
MARCH	1	2.75	4.00	265												
	2	3.22	4.00	265												
APRIL	1	3.54	5.00	332												
	2	4.02	5.00	332												
MAY	1	4.61	5.00	332												
	2	5.36	5.00	332												
JUNE	1	5.34	6.00	398												
	2	5.48	6.00	398												
JULY	1	5.48	6.00	398												
	2	5.30	6.00	398												
AUG	1	4.55	6.00	398												
	2	4.43	6.00	398												
SEPT	1	4.98	5.00	332												
	2	4.29	5.00	332												
OCT	1	3.18	0.00	0												
	2	2.48	0.00	0												
NOV	1	1.85	0.00	0												
	2	1.65	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		74.32	78.00	5175												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: ALFALFA  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B7

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	1.81	5.00	5	*****											
MARCH	1	2.75	5.00	5	*****											
	2	3.22	5.00	5	*****											
APRIL	1	3.54	5.00	5	*****											
	2	4.02	5.00	5	*****											
MAY	1	4.61	5.00	5	*****											
	2	5.36	6.00	6	*****											
JUNE	1	5.34	6.00	6	*****											
	2	5.48	6.00	6	*****											
JULY	1	5.48	6.00	6	*****											
	2	5.30	6.00	6	*****											
AUG	1	4.55	6.00	6	*****											
	2	4.43	6.00	6	*****											
SEPT	1	4.98	6.00	6	*****											
	2	4.29	6.00	6	*****											
OCT	1	3.18	0.00	0												
	2	2.48	0.00	0												
NOV	1	1.95	0.00	0												
	2	1.65	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		74.32	84.00	84												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: ALFALFA  
 TECHNIQUE: SIDE ROLL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B8

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	1.81	4.00	74	*****												
MARCH	1	2.75	4.00	74	*****												
	2	3.22	4.00	74	*****												
APRIL	1	3.54	5.00	93	*****												
	2	4.02	5.00	93	*****												
MAY	1	4.61	5.00	93	*****												
	2	5.36	5.00	93	*****												
JUNE	1	5.34	6.00	111	*****												
	2	5.48	6.00	111	*****												
JULY	1	5.48	6.00	111	*****												
	2	5.30	6.00	111	*****												
AUG	1	4.55	6.00	111	*****												
	2	4.43	6.00	111	*****												
SEPT	1	4.99	5.00	93	*****												
	2	4.29	5.00	93	*****												
OCT	1	3.18	0.00	0													
	2	2.48	0.00	0													
NOV	1	1.85	0.00	0													
	2	1.65	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		74.32	78.00	1446													





IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: WINTER WHEAT  
 TECHNIQUE: SIDEROLL  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 375

TABLE B10

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330
JAN	1	.30	3.00	199	*****										
	2	.48	0.00	0											
FEB	1	.56	3.00	199	*****										
	2	.70	0.00	0											
MARCH	1	1.35	4.00	265	*****										
	2	3.52	0.00	0											
APRIL	1	5.25	4.00	265	*****										
	2	5.85	5.00	332	*****										
MAY	1	4.20	5.00	332	*****										
	2	.72	0.00	0											
JUNE	1	0.00	0.00	0											
	2	0.00	0.00	0											
JULY	1	0.00	0.00	0											
	2	0.00	0.00	0											
AUG	1	0.00	0.00	0											
	2	0.00	0.00	0											
SEPT	1	0.00	0.00	0											
	2	0.00	0.00	0											
OCT	1	0.00	0.00	0											
	2	0.00	0.00	0											
NOV	1	0.00	5.00 P	332	*****										
	2	0.00	5.00 P	332	*****										
DEC	1	0.00	0.00	0											
	2	0.00	0.00	0											
TOTALS		22.93	34.00	2256											

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: WINTER WHEAT  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B11

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.30	4.00	4	****											
	2	.48	0.00	0												
FEB	1	.56	4.00	4	****											
	2	.70	0.00	0												
MARCH	1	1.35	5.00	5	*****											
	2	3.52	0.00	0												
APRIL	1	5.25	5.00	5	*****											
	2	5.85	6.00	6	*****											
MAY	1	4.20	6.00	6	*****											
	2	.72	0.00	0												
JUNE	1	0.00	0.00	0												
	2	0.00	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	6.00 P	6	*****											
	2	0.00	6.00 P	6	*****											
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.93	42.00	42												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: WINTER WHEAT  
 TECHNIQUE: SIDEROLL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B12

FERTILITY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.30	3.00	56	*****												
	2	.48	0.00	0													
FEB	1	.56	3.00	56	*****												
	2	.70	0.00	0													
MARCH	1	1.35	4.00	74	*****												
	2	3.52	0.00	0													
APRIL	1	5.25	4.00	74	*****												
	2	5.85	5.00	93	*****												
MAY	1	4.20	5.00	93	*****												
	2	.72	0.00	0													
JUNE	1	0.00	0.00	0													
	2	0.00	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	5.00 P	93	*****												
	2	0.00	5.00 P	93	*****												
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		22.93	34.00	632													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 60  
 FEET OF LIFT: 375

TABLE B13

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	35	70	105	140	175	210	245	280	315	350	385	420
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	0.00	0													
MARCH	0.00	0.00	0													
APRIL	0.00	0.00	0													
APRIL	0.00	0.00	0													
MAY	0.00	0.00	0													
MAY	0.00	0.00	0													
JUNE	0.00	8.00 P	390	*****												
JUNE	0.00	0.00	0													
JULY	.60	7.00	341	*****												
JULY	3.20	6.00	292	*****												
AUG	5.25	7.00	341	*****												
AUG	6.72	6.00	292	*****												
SEPT	4.80	6.00	292	*****												
SEPT	2.85	0.00	0													
OCT	1.50	0.00	0													
OCT	.48	0.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	25.40	40.00	1948													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: SOFGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 60  
 FEET OF LIFT: 375

TABLE B14

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	40	80	120	160	200	240	280	320	360	400	440	480
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	4.00 P	289	*****											
	2	0.00	4.00	289	*****											
JULY	1	.60	4.00	289	*****											
	2	3.20	4.00	289	*****											
AUG	1	5.25	4.00	289	*****											
	2	6.72	4.00	289	*****											
SEPT	1	4.80	6.00	434	*****											
	2	2.85	0.00	0												
OCT	1	1.50	0.00	0												
	2	.48	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		25.40	30.00	2168												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CRCP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B15

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	8.00 P	8												
	2	0.00	0.00	0												
JULY	1	.60	7.00	7												
	2	3.20	6.00	6												
AUG	1	5.25	7.00	7												
	2	6.72	6.00	6												
SEPT	1	4.80	6.00	6												
	2	2.85	0.00	0												
OCT	1	1.50	0.00	0												
	2	.48	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		25.40	40.00	40												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: ARIZONA  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 5

TABLE B16

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	0.00	4.00 P	98	*****												
	2	0.00	4.00	98	*****												
JULY	1	.60	4.00	98	*****												
	2	3.20	4.00	98	*****												
AUG	1	5.25	4.00	98	*****												
	2	6.72	4.00	98	*****												
SEPT	1	4.80	6.00	147	*****												
	2	2.85	0.00	0													
OCT	1	1.50	0.00	0													
	2	.48	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		25.40	30.00	735													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B17

CROP: IRRIGATED PASTURE

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 26

FEET OF LIFT: 53

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (PT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.50	0.00	0													
	2	0.50	0.00	0													
FEB	1	1.05	0.00	0													
	2	1.05	0.00	0													
MARCH	1	1.70	0.00	0													
	2	1.70	4.00 P	36	*****												
APRIL	1	2.35	0.00	0													
	2	2.35	6.00	54	*****												
MAY	1	3.15	5.00	45	*****												
	2	3.15	5.00	45	*****												
JUNE	1	3.95	6.00	54	*****												
	2	3.95	6.00	54	*****												
JULY	1	4.20	6.00	54	*****												
	2	4.20	6.00	54	*****												
AUG	1	3.65	5.00	45	*****												
	2	3.65	4.00	36	*****												
SEPT	1	2.65	4.00	36	*****												
	2	2.65	6.00	54	*****												
OCT	1	1.80	0.00	0													
	2	1.80	0.00	0													
NOV	1	.90	0.00	0													
	2	.90	0.00	0													
DEC	1	.50	0.00	0													
	2	.50	0.00	0													
TOTALS		52.80	63.00	567													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 26  
 FEET OF LIFT: 53

TABLE B18

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	.50	0.00	0													
	2	.50	0.00	0													
FEB	1	1.05	0.00	0													
	2	1.05	0.00	0													
MARCH	1	1.70	0.00	0													
	2	1.70	4.00 P	99	*****												
APRIL	1	2.35	0.00	0													
	2	2.35	5.00	124	*****												
MAY	1	3.15	4.00	99	*****												
	2	3.15	4.00	99	*****												
JUNE	1	3.95	4.00	99	*****												
	2	3.95	5.00	124	*****												
JULY	1	4.20	5.00	124	*****												
	2	4.20	5.00	124	*****												
AUG	1	3.65	4.00	99	*****												
	2	3.65	3.00	74	*****												
SEPT	1	2.65	3.00	74	*****												
	2	2.65	4.00	99	*****												
OCT	1	1.80	0.00	0													
	2	1.80	0.00	0													
NOV	1	.90	0.00	0													
	2	.90	0.00	0													
DEC	1	.50	0.00	0													
	2	.50	0.00	0													
TOTALS		52.80	50.00	1238													

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B19

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.50	0.00	0												
	2	.50	0.00	0												
FEB	1	1.05	0.00	0												
	2	1.05	0.00	0												
MARCH	1	1.70	0.00	0												
	2	1.70	4.00 P	8	*****											
APRIL	1	2.35	0.00	0												
	2	2.35	6.00	13	*****											
MAY	1	3.15	5.00	10	*****											
	2	3.15	5.00	10	*****											
JUNE	1	3.95	6.00	13	*****											
	2	3.95	6.00	13	*****											
JULY	1	4.20	6.00	13	*****											
	2	4.20	6.00	13	*****											
AUG	1	3.65	5.00	10	*****											
	2	3.65	4.00	8	*****											
SEPT	1	2.65	4.00	8	*****											
	2	2.65	6.00	13	*****											
OCT	1	1.80	0.00	0												
	2	1.80	0.00	0												
NOV	1	.90	0.00	0												
	2	.90	0.00	0												
DEC	1	.50	0.00	0												
	2	.50	0.00	0												
TOTALS		52.80	63.00	132												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B20

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	.50	0.00	0												
	2	.50	0.00	0												
FEB	1	1.05	0.00	0												
	2	1.05	0.00	0												
MARCH	1	1.70	0.00	0												
	2	1.70	4.00 P	72	*****											
APRIL	1	2.35	0.00	0												
	2	2.35	5.00	90	*****											
MAY	1	3.15	4.00	72	*****											
	2	3.15	4.00	72	*****											
JUNE	1	3.95	4.00	72	*****											
	2	3.95	5.00	90	*****											
JULY	1	4.20	5.00	90	*****											
	2	4.20	5.00	90	*****											
AUG	1	3.65	4.00	72	*****											
	2	3.65	3.00	54	*****											
SEPT	1	2.65	3.00	54	*****											
	2	2.65	4.00	72	*****											
OCT	1	1.80	0.00	0												
	2	1.80	0.00	0												
NOV	1	.90	0.00	0												
	2	.90	0.00	0												
DEC	1	.50	0.00	0												
	2	.50	0.00	0												
TOTALS		52.80	50.00	900												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: RICE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 26  
 FEET OF LIFT: 53

TABLE B21

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	54	*****											
	2	0.00	6.00 P	54	*****											
APRIL	1	0.00	6.00	54	*****											
	2	2.20	6.00	54	*****											
MAY	1	3.40	7.00	63	*****											
	2	3.40	7.00	63	*****											
JUNE	1	4.60	8.00	71	*****											
	2	4.60	9.00	80	*****											
JULY	1	4.55	9.00	80	*****											
	2	4.55	8.00	71	*****											
AUG	1	3.90	7.00	63	*****											
	2	3.90	7.00	63	*****											
SEPT	1	2.80	6.00	54	*****											
	2	2.80	6.00	54	*****											
OCT	1	1.30	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS	42.00	98.00	878													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: RICE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B22

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	13	*****											
	2	0.00	6.00 P	13	*****											
APRIL	1	0.00	6.00	13	*****											
	2	2.20	6.00	13	*****											
MAY	1	3.40	7.00	15	*****											
	2	3.40	7.00	15	*****											
JUNE	1	4.60	8.00	17	*****											
	2	4.60	9.00	19	*****											
JULY	1	4.55	9.00	19	*****											
	2	4.55	8.00	17	*****											
AUG	1	3.90	7.00	15	*****											
	2	3.90	7.00	15	*****											
SEPT	1	2.80	6.00	13	*****											
	2	2.80	6.00	13	*****											
OCT	1	1.30	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		42.00	98.00	210												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 26  
 FEET OF LIFT: 53

TABLE B23

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0													
	2	0.00	0													
FEB	1	0.00	0													
	2	0.00	0													
MARCH	1	1.35	0													
	2	1.35	0													
APRIL	1	2.00	0													
	2	2.00	71	*****												
MAY	1	2.65	0													
	2	2.65	54	*****												
JUNE	1	3.40	54	*****												
	2	3.40	0													
JULY	1	3.85	54	*****												
	2	3.85	54	*****												
AUG	1	3.45	54	*****												
	2	3.45	45	*****												
SEPT	1	2.70	36	*****												
	2	2.70	0													
OCT	1	1.75	0													
	2	1.75	0													
NOV	1	0.00	0													
	2	0.00	0													
DEC	1	0.00	0													
	2	0.00	0													
TOTALS		42.30	47.00	422												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 26  
 FEET OF LIFT: 53

TABLE B24

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	1.35	0.00	0												
	2	1.35	0.00	0												
APRIL	1	2.00	0.00	0												
	2	2.00	5.00	124	*****											
MAY	1	2.65	0.00	0												
	2	2.65	6.50	161	*****											
JUNE	1	3.40	4.00	99	*****											
	2	3.40	4.00	99	*****											
JULY	1	3.85	4.50	111	*****											
	2	3.85	4.50	111	*****											
AUG	1	3.45	0.00	0												
	2	3.45	6.00	148	*****											
SEPT	1	2.70	3.00	74	*****											
	2	2.70	0.00	0												
OCT	1	1.75	0.00	0												
	2	1.75	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		42.30	37.50	927												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B25

CROP: ALFALFA

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 74

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	1.35	0.00	0													
	2	1.35	0.00	0													
APRIL	1	2.00	0.00	0													
	2	2.00	8.00	17	*****												
MAY	1	2.65	0.00	0													
	2	2.65	6.00	13	*****												
JUNE	1	3.40	5.00	13	*****												
	2	3.40	0.00	0													
JULY	1	3.85	6.00	13	*****												
	2	3.85	6.00	13	*****												
AUG	1	3.45	6.00	13	*****												
	2	3.45	5.00	10	*****												
SEPT	1	2.70	4.00	8	*****												
	2	2.70	0.00	0													
OCT	1	1.75	0.00	0													
	2	1.75	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		42.30	47.00	100													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: ALFALFA  
 TECHNIQUE: HANDHOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B26

ENERGY REQUIREMENTS

TIME	:	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE															
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120			
JAN	:	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	:	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	:	1	1.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	1.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	:	1	2.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	2.00	5.00	90	:	*****													
MAY	:	1	2.65	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	2.65	6.50	116	:	*****													
JUNE	:	1	3.40	4.00	72	:	*****													
	:	2	3.40	4.00	72	:	*****													
JULY	:	1	3.85	4.50	81	:	*****													
	:	2	3.85	4.50	81	:	*****													
AUG	:	1	3.45	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	3.45	6.00	107	:	*****													
SEPT	:	1	2.70	3.00	54	:	*****													
	:	2	2.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	:	1	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	:	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	:	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS			42.30	37.50	673	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: ALMONDS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 20  
 FEET OF LIFT: 53

TABLE B27

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	6.00 P	54	*****												
MARCH	1	0.00	0.00	0													
	2	.70	0.00	0													
APRIL	1	1.15	0.00	0													
	2	1.15	6.00	54	*****												
MAY	1	1.85	0.00	0													
	2	1.85	6.00	54	*****												
JUNE	1	2.45	6.00	54	*****												
	2	2.45	0.00	0													
JULY	1	2.85	6.00	54	*****												
	2	2.85	7.00	63	*****												
AUG	1	2.40	6.00	54	*****												
	2	2.40	0.00	0													
SEPT	1	1.80	0.00	0													
	2	1.80	0.00	0													
OCT	1	1.05	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.75	43.00	387													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B28

CROP: ALMONDS

TECHNIQUE: HANDMOVE

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 26

FEET OF LIFT: 53

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	5.00 P	124	*****												
MARCH	1	0.00	0.00	0													
	2	.70	0.00	0													
APRIL	1	1.15	0.00	0													
	2	1.15	3.00	74	*****												
MAY	1	1.85	3.00	74	*****												
	2	1.85	4.00	99	*****												
JUNE	1	2.45	4.00	99	*****												
	2	2.45	4.00	99	*****												
JULY	1	2.85	4.00	99	*****												
	2	2.85	4.00	99	*****												
AUG	1	2.40	4.00	99	*****												
	2	2.40	0.00	0													
SEPT	1	1.80	0.00	0													
	2	1.80	0.00	0													
OCT	1	1.05	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.75	35.00	866													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B29

CROP: ALMONDS

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 74

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	6.00 P	13	*****											
MARCH	1	0.00	0.00	0												
	2	.70	0.00	0												
APRIL	1	1.15	0.00	0												
	2	1.15	6.00	13	*****											
MAY	1	1.85	0.00	0												
	2	1.85	6.00	13	*****											
JUNE	1	2.45	6.00	13	*****											
	2	2.45	0.00	0												
JULY	1	2.85	6.00	13	*****											
	2	2.85	7.00	15	*****											
AUG	1	2.40	6.00	13	*****											
	2	2.40	0.00	0												
SEPT	1	1.80	0.00	0												
	2	1.80	0.00	0												
OCT	1	1.05	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		26.75	43.00	93												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: ALMONDS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B30

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	5.00 P	90	*****											
MARCH	1	0.00	0.00	0												
	2	.70	0.00	0												
APRIL	1	1.15	0.00	0												
	2	1.15	3.00	54	*****											
MAY	1	1.85	3.00	54	*****											
	2	1.85	4.00	72	*****											
JUNE	1	2.45	4.00	72	*****											
	2	2.45	4.00	72	*****											
JULY	1	2.85	4.00	72	*****											
	2	2.85	4.00	72	*****											
AUG	1	2.40	4.00	72	*****											
	2	2.40	0.00	0												
SEPT	1	1.80	0.00	0												
	2	1.80	0.00	0												
OCT	1	1.05	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		26.75	35.00	630												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B31

CROP: SUGAR BEETS

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER : 26

FEET OF LIFT: 53

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	6.00 P	54	*****												
MARCH	.40	0.00	0													
APRIL	1.85	0.00	0													
APRIL	1.85	0.00	0													
MAY	3.95	4.00	36	*****												
MAY	3.95	0.00	0													
JUNE	4.80	6.00	54	*****												
JUNE	4.80	0.00	0													
JULY	4.00	5.00	45	*****												
JULY	4.00	5.00	45	*****												
AUG	2.55	0.00	0													
AUG	2.55	5.00	45	*****												
SEPT	0.00	0.00	0													
SEPT	0.00	5.00	45	*****												
OCT	0.00	0.00	0													
OCT	0.00	5.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	34.70	41.00	324													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: SUGAR BEETS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 26  
 FEET OF LIFT: 53

TABLE B32

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	5.00 P	124	*****												
	2	.40	0.00	0													
APRIL	1	1.85	0.00	0													
	2	1.85	0.00	0													
MAY	1	3.95	3.00	74	*****												
	2	3.95	0.00	0													
JUNE	1	4.80	4.00	95	*****												
	2	4.80	0.00	0													
JULY	1	4.00	3.00	74	*****												
	2	4.00	3.00	74	*****												
AUG	1	2.55	0.00	0													
	2	2.55	4.00	95	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	3.00	74	*****												
OCT	1	0.00	0.00	0													
	2	0.00	3.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		34.70	28.00	618													

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY  
 CROP: SUGAR BEETS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 74  
 FEET OF LIFT: 0

TABLE B3

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	6.00 P	13	*****											
	2	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	3.95	4.00	8	*****											
	2	3.95	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	4.80	6.00	13	*****											
	2	4.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	4.00	5.00	10	*****											
	2	4.00	5.00	10	*****											
AUG	1	2.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.55	5.00	10	*****											
SEPT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	5.00	10	*****											
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	5.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		34.70	41.00	74												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SACRAMENTO VALLEY

TABLE B34

CROP: SUGAR BEETS

TECHNIQUE: HANDMOVE

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 74

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	5.00 P	90	*****											
	2	.40	0.00	0												
APRIL	1	1.85	0.00	0												
	2	1.85	0.00	0												
MAY	1	3.95	3.00	54	*****											
	2	3.95	0.00	0												
JUNE	1	4.80	4.00	72	*****											
	2	4.80	0.00	0												
JULY	1	4.00	3.00	54	*****											
	2	4.00	3.00	54	*****											
AUG	1	2.55	0.00	0												
	2	2.55	4.00	72	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	3.00	54	*****											
OCT	1	0.00	0.00	0												
	2	0.00	3.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		34.70	28.00	450												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

TABLE B35

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	3.15	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.15	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	4.30	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	4.30	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	3.85	5.00	68	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.85	6.00	82	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	4.90	6.00	82	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	4.90	5.00	68	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	3.35	5.00	68	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.35	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	2.25	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.25	4.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.45	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.45	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		52.60	51.00	692	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 37  
 FEET OF LIFT: 89

TABLE B36

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																															
	CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180																																																																																																																																																																																																																																																																																																																																																																																																																																			
JAN	1	.30	0.00	0														2	.30	0.00	0													FEB	1	.55	0.00	0														2	.55	0.00	0													MARCH	1	1.40	0.00	0														2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147												
	2	.30	0.00	0													FEB	1	.55	0.00	0														2	.55	0.00	0													MARCH	1	1.40	0.00	0														2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																													
FEB	1	.55	0.00	0														2	.55	0.00	0													MARCH	1	1.40	0.00	0														2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																														
	2	.55	0.00	0													MARCH	1	1.40	0.00	0														2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																															
MARCH	1	1.40	0.00	0														2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																
	2	1.40	0.00	0													APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																	
APRIL	1	3.15	0.00	0														2	3.15	3.00	88	*****													MAY	1	4.30	3.00	88	*****														2	4.30	3.00	88	*****													JUNE	1	3.85	4.00	118	*****														2	3.85	4.00	118	*****													JULY	1	4.90	5.00	147	*****														2	4.90	4.00	118	*****													AUG	1	3.35	4.00	118	*****														2	3.35	3.00	88	*****													SEPT	1	2.25	3.00	88	*****														2	2.25	3.00	88	*****													OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																		
	2	3.15	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
MAY	1	4.30	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
	2	4.30	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
JUNE	1	3.85	4.00	118	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
	2	3.85	4.00	118	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
JULY	1	4.90	5.00	147	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
	2	4.90	4.00	118	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
AUG	1	3.35	4.00	118	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
	2	3.35	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
SEPT	1	2.25	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
	2	2.25	3.00	88	*****																																																																																																																																																																																																																																																																																																																																																																																																																																														
OCT	1	1.55	0.00	0														2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																									
	2	1.55	0.00	0													NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																										
NOV	1	.45	0.00	0														2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																																											
	2	.45	0.00	0													DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																																																												
DEC	1	.25	0.00	0														2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																																																																													
	2	.25	0.00	0													TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																																																																																														
TOTALS		52.60	39.00	1147																																																																																																																																																																																																																																																																																																																																																																																																																																															

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B3

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	3.15	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.15	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
MAY	1	4.30	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
	2	4.30	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
JUNE	1	3.85	5.00	10	:	*****	:	:	:	:	:	:	:	:	:	:
	2	3.85	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
JULY	1	4.90	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
	2	4.90	5.00	10	:	*****	:	:	:	:	:	:	:	:	:	:
AUG	1	3.35	5.00	10	:	*****	:	:	:	:	:	:	:	:	:	:
	2	3.35	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
SEPT	1	2.25	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
	2	2.25	4.00	8	:	*****	:	:	:	:	:	:	:	:	:	:
OCT	1	1.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.45	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.45	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		52.60	51.00	104	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B38

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (PT)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	4.00	72	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	4.00	72	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	5.00	90	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	4.00	72	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	4.00	72	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.00	54	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		39.00	702	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

TABLE B39

ENPRGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	1.80	0.00	0												
	2	1.80	6.00 P	82	*****											
MAY	1	2.40	0.00	0												
	2	2.40	6.00	82	*****											
JUNE	1	3.00	0.00	0												
	2	3.00	6.00	82	*****											
JULY	1	3.90	5.00	68	*****											
	2	3.90	5.00	68	*****											
AUG	1	3.30	5.00	68	*****											
	2	3.30	4.00	54	*****											
SEPT	1	3.00	4.00	54	*****											
	2	3.00	0.00	0												
OCT	1	.60	0.00	0												
	2	.60	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		36.00	41.00	558												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

TABLE B40

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE															
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180			
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
APRIL	1	1.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	1.80	4.00 P	118	*****														
MAY	1	2.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	2.40	5.50	162	*****														
JUNE	1	3.00	3.50	103	*****														
	2	3.00	4.00	118	*****														
JULY	1	3.90	4.50	132	*****														
	2	3.90	4.00	118	*****														
AUG	1	3.30	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	3.30	5.50	162	*****														
SEPT	1	3.00	3.00	88	*****														
	2	3.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
OCT	1	.60	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	.60	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:			
TOTALS		36.00	34.00	1001															

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B4

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	1.80	0.00	0												
	2	1.80	6.00 P	13	*****											
MAY	1	2.40	0.00	0												
	2	2.40	6.00	13	*****											
JUNE	1	3.00	0.00	0												
	2	3.00	6.00	13	*****											
JULY	1	3.90	5.00	10	*****											
	2	3.90	5.00	10	*****											
AUG	1	3.30	5.00	10	*****											
	2	3.30	4.00	8	*****											
SEPT	1	3.00	4.00	8	*****											
	2	3.00	0.00	0												
OCT	1	.60	0.00	0												
	2	.60	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		36.00	41.00	85												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B42

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	1.80	0.00	0												
	2	1.80	4.00 P	72	*****											
MAY	1	2.40	0.00	0												
	2	2.40	5.50	98	*****											
JUNE	1	3.00	3.50	63	*****											
	2	3.00	4.00	72	*****											
JULY	1	3.90	4.50	81	*****											
	2	3.90	4.00	72	*****											
AUG	1	3.30	0.00	0												
	2	3.30	5.50	98	*****											
SEPT	1	3.00	3.00	54	*****											
	2	3.00	0.00	0												
OCT	1	.60	0.00	0												
	2	.60	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		36.00	34.00	610												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: SUGAR BEETS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

TABLE B43

ENRGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	82	*****											
	2	.40	0.00	0												
APRIL	1	1.85	0.00	0												
	2	1.85	0.00	0												
MAY	1	3.95	4.00	54	*****											
	2	3.95	0.00	0												
JUNE	1	4.80	5.00	68	*****											
	2	4.80	6.00	82	*****											
JULY	1	4.00	5.00	68	*****											
	2	4.00	0.00	0												
AUG	1	2.55	5.00	68	*****											
	2	2.55	0.00	0												
SEPT	1	0.00	5.00	68	*****											
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		34.70	36.00	490												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: SUGAR BEETS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 37  
 FEET OF LIFT: 39

TABLE B44

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAR	1	0.00	4.00 P	118	*****												
	2	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
APR	1	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	1	3.95	4.00	118	*****												
	2	3.95	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
JUNE	1	4.80	4.00	118	*****												
	2	4.80	5.00	147	*****												
JULY	1	4.00	4.00	118	*****												
	2	4.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
AUG	1	2.55	4.00	118	*****												
	2	2.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
SEPT	1	0.00	4.00	118	*****												
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS		34.70	29.00	855	:	:	:	:	:	:	:	:	:	:	:	:	

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA

TABLE B45

CROP: SUGAR BEETS

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 63

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	13	*****											
	2	.40	0.00	0												
APRIL	1	1.85	0.00	0												
	2	1.85	0.00	0												
MAY	1	3.95	4.00	8	*****											
	2	3.95	0.00	0												
JUNE	1	4.80	5.00	10	*****											
	2	4.80	6.00	13	*****											
JULY	1	4.00	5.00	10	*****											
	2	4.00	0.00	0												
AUG	1	2.55	5.00	10	*****											
	2	2.55	0.00	0												
SEPT	1	0.00	5.90	10	*****											
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		34.70	36.00	74												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: SUGAR BEETS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B46

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	4.00 P	72	*****											
	2	.40	0.00	0												
APRIL	1	1.85	0.00	0												
	2	1.85	0.00	0												
MAY	1	3.95	4.00	72	*****											
	2	3.95	0.00	0												
JUNE	1	4.80	4.00	72	*****											
	2	4.80	5.00	90	*****											
JULY	1	4.00	4.00	72	*****											
	2	4.00	0.00	0												
AUG	1	2.55	4.00	72	*****											
	2	2.55	0.00	0												
SEPT	1	0.00	4.00	72	*****											
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		34.70	29.00	522												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: TOMATOES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

TABLE B47

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE														
	CONSUMPTIVE USE (LT)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180		
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
MARCH	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
MARCH	0.00	9.00 P	122	:	*****													
APRIL	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
APRIL	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
MAY	1.00	6.00	82	:	*****													
MAY	1.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
JUNE	1.75	6.00	82	:	*****													
JUNE	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
JULY	4.55	7.50	102	:	*****													
JULY	4.55	6.00	82	:	*****													
AUG	4.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
AUG	4.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
SEPT	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
SEPT	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
OCT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
OCT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:		
TOTALS	26.60	34.50	470	:	:	:	:	:	:	:	:	:	:	:	:	:		

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: TOMATOES  
 TECHNIQUE: HARDCOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 89

TABLE B48

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES	CONSUMPTION	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT PER/ACRE	KILOWATT-HOURS/ACRE												
					0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	6.00 P	176	*****												
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	1.00	0.00	0													
	2	1.00	3.00	88	*****												
JUNE	1	1.75	4.00	118	*****												
	2	1.75	4.50	132	*****												
JULY	1	4.55	3.50	103	*****												
	2	4.55	3.50	103	*****												
AUG	1	4.25	3.00	88	*****												
	2	4.25	0.00	0													
SEPT	1	1.75	0.00	0													
	2	1.75	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.60	27.50	808													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: TOMATOES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B49

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	9.00 P	19	*****												
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	1.00	6.00	13	*****												
	2	1.00	0.00	0													
JUNE	1	1.75	6.00	13	*****												
	2	1.75	0.00	0													
JULY	1	4.55	7.50	16	*****												
	2	4.55	6.00	13	*****												
AUG	1	4.25	0.00	0													
	2	4.25	0.00	0													
SEPT	1	1.75	0.00	0													
	2	1.75	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.60	34.50	74													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA

TABLE B50

CROP: TOMATOES

TECHNIQUE: HANDMOVE

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 63

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	6.00 P	107	*****												
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	1.00	0.00	0													
	2	1.00	3.00	54	*****												
JUNE	1	1.75	4.00	72	*****												
	2	1.75	4.50	81	*****												
JULY	1	4.55	3.50	63	*****												
	2	4.55	3.50	63	*****												
AUG	1	4.25	3.00	54	*****												
	2	4.25	0.00	0													
SEPT	1	1.75	0.00	0													
	2	1.75	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.60	27.50	494													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA TABLE B51  
 CROP: GRAPES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 37  
 FEET OF LIFT: 89

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	6.00 P	82	*****											
APRIL	1	0.00	0.00	0												
	2	.70	0.00	0												
MAY	1	1.90	0.00	0												
	2	1.90	6.00	82	*****											
JUNE	1	2.90	0.00	0												
	2	2.90	6.00	82	*****											
JULY	1	3.35	6.00	82	*****											
	2	3.35	0.00	0												
AUG	1	2.75	6.00	82	*****											
	2	2.75	0.00	0												
SEPT	1	1.75	0.00	0												
	2	1.75	0.00	0												
OCT	1	.70	0.00	0												
	2	.70	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.40	30.00	410												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA TABLE B52 :  
 CROP: GRAPES :  
 TECHNIQUE: SOLID SET :  
 WATER SOURCE: GROUND WATER :  
 PERCENT GROUND WATER: 37 :  
 FEET OF LIFT: 89 :

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	4.00 P	106	*****												
APRIL	1	0.00	0.00	0													
	2	.70	0.00	0													
MAY	1	1.90	0.00	0													
	2	1.90	4.00	106	*****												
JUNE	1	2.90	4.00	106	*****												
	2	2.90	0.00	0													
JULY	1	3.35	4.00	106	*****												
	2	3.35	4.00	106	*****												
AUG	1	2.75	4.00	106	*****												
	2	2.75	0.00	0													
SEPT	1	1.75	0.00	0													
	2	1.75	0.00	0													
OCT	1	.70	0.00	0													
	2	.70	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		27.40	24.00	636													

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA  
 CROP: GRAPES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 63  
 FEET OF LIFT: 0

TABLE B53

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	6.00 P	13	*****											
APRIL	1	0.00	0.00	0												
	2	.70	0.00	0												
MAY	1	1.90	0.00	0												
	2	1.90	6.00	13	*****											
JUNE	1	2.90	0.00	0												
	2	2.90	6.00	13	*****											
JULY	1	3.35	6.00	13	*****											
	2	3.35	0.00	0												
AUG	1	2.75	6.00	13	*****											
	2	2.75	0.00	0												
SEPT	1	1.75	0.00	0												
	2	1.75	0.00	0												
OCT	1	.70	0.00	0												
	2	.70	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.40	30.00	65												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, SAN JOAQUIN DELTA

TABLE B54

CROP: GRAPES

TECHNIQUE: SOLID SET

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 63

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	4.00 P	60	*****											
APRIL	1	0.00	0.00	0												
	2	.70	0.00	0												
MAY	1	1.90	0.00	0												
	2	1.90	4.00	60	*****											
JUNE	1	2.90	4.00	60	*****											
	2	2.90	0.00	0												
JULY	1	3.35	4.00	60	*****											
	2	3.35	4.00	60	*****											
AUG	1	2.75	4.00	60	*****											
	2	2.75	0.00	0												
SEPT	1	1.75	0.00	0												
	2	1.75	0.00	0												
OCT	1	.70	0.00	0												
	2	.70	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.40	24.00	360												

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

TABLE B55

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.50	0.00	0													
	2	.50	0.00	0													
FEB	1	.90	0.00	0													
	2	.90	0.00	0													
MARCH	1	1.50	6.00 P	108	*****												
	2	1.50	0.00	0													
APRIL	1	2.35	6.00	108	*****												
	2	2.35	0.00	0													
MAY	1	3.05	6.00	108	*****												
	2	3.05	6.00	108	*****												
JUNE	1	3.90	6.00	108	*****												
	2	3.90	6.00	108	*****												
JULY	1	4.10	6.00	108	*****												
	2	4.10	6.00	108	*****												
AUG	1	3.55	6.00	108	*****												
	2	3.55	4.00	72	*****												
SEPT	1	2.60	4.00	72	*****												
	2	2.60	0.00	0													
OCT	1	1.75	5.00	90	*****												
	2	1.75	0.00	0													
NOV	1	.80	0.00	0													
	2	.80	0.00	0													
DEC	1	.40	0.00	0													
	2	.40	0.00	0													
TOTALS		50.80	67.00	1206													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 32  
 FEET OF LIPT: 123

TABLE B56

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FPB	1	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAFCH	1	1.50	4.00 P	135	*****												
	2	1.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
APRIL	1	2.35	4.00	135	*****												
	2	2.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	1	3.05	4.00	135	*****												
	2	3.05	4.00	135	*****												
JUNE	1	3.90	4.00	135	*****												
	2	3.90	4.00	135	*****												
JULY	1	4.10	4.00	135	*****												
	2	4.10	4.00	135	*****												
AUG	1	3.55	4.00	135	*****												
	2	3.55	3.00	101	*****												
SEPT	1	2.60	3.00	101	*****												
	2	2.60	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	1.75	4.00	135	*****												
	2	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS		50.80	46.00	1552	:	:	:	:	:	:	:	:	:	:	:	:	

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

TABLE B57

ENERGY REQUIREMENTS

TIME	WATER EQUIPMENT INCHES CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
				0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1		0														
	2		0														
FEB	1		0														
	2		0														
MARCH	1	6.00 P	13														
	2		0														
APRIL	1	6.00	13														
	2		0														
MAY	1	6.00	13														
	2		13														
JUNE	1	6.00	13														
	2		13														
JULY	1	6.00	13														
	2		13														
AUG	1	6.00	13														
	2	4.00	8														
SEPT	1	4.00	8														
	2	0.00	0														
OCT	1	5.00	10														
	2	0.00	0														
NOV	1	0.00	0														
	2	0.00	0														
DEC	1	0.00	0														
	2	0.00	0														
TOTALS																	

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN TABLE B58  
 CROP: IRRIGATED PASTURE  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.50	4.00 P	72	*****												
	2	1.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	2.35	4.00	72	*****												
	2	2.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	3.05	4.00	72	*****												
	2	3.05	4.00	72	*****												
JUNE	1	3.90	4.00	72	*****												
	2	3.90	4.00	72	*****												
JULY	1	4.10	4.00	72	*****												
	2	4.10	4.00	72	*****												
AUG	1	3.55	4.00	72	*****												
	2	3.55	3.00	54	*****												
SEPT	1	2.60	3.00	54	*****												
	2	2.60	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.75	4.00	72	*****												
	2	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.40	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		50.80	46.00	828	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

TABLE B59

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	1.45	8.00 P	168	*****												
	2	1.45	0.00	0													
APRIL	1	2.05	0.00	0													
	2	2.05	6.00	126	*****												
MAY	1	2.95	0.00	0													
	2	2.95	8.00	168	*****												
JUNE	1	3.50	6.00	126	*****												
	2	3.50	8.00	168	*****												
JULY	1	3.80	8.00	168	*****												
	2	3.80	6.00	126	*****												
AUG	1	3.40	6.00	126	*****												
	2	3.40	0.00	0													
SEPT	1	2.50	6.00	126	*****												
	2	2.50	0.00	0													
OCT	1	1.25	0.00	0													
	2	1.25	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		41.80	62.00	1302													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN

TABLE B60

CROP: ALFALFA

TECHNIQUE: HANDMOVE

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 32

FEET OF LIFT: 123

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	1.45	6.00 P	203	*****												
	2	1.45	0.00	0													
APRIL	1	2.05	0.00	0													
	2	2.05	6.00	203	*****												
MAY	1	2.95	0.00	0													
	2	2.95	6.00	203	*****												
JUNE	1	3.50	5.00	169	*****												
	2	3.50	6.00	203	*****												
JULY	1	3.80	6.00	203	*****												
	2	3.80	5.00	169	*****												
AUG	1	3.40	6.00	203	*****												
	2	3.40	0.00	0													
SEPT	1	2.50	3.00	101	*****												
	2	2.50	0.00	0													
OCT	1	1.25	0.00	0													
	2	1.25	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		41.80	49.00	1657													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

TABLE B61

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	1.45	8.00 P	41	*****												
	2	1.45	0.00	0													
APRIL	1	2.05	0.00	0													
	2	2.05	6.00	30	*****												
MAY	1	2.95	0.00	0													
	2	2.95	8.00	41	*****												
JUNE	1	3.50	6.00	30	*****												
	2	3.50	8.00	41	*****												
JULY	1	3.80	8.00	41	*****												
	2	3.80	6.00	30	*****												
AUG	1	3.40	6.00	30	*****												
	2	3.40	0.00	0													
SEPT	1	2.50	6.00	30	*****												
	2	2.50	0.00	0													
OCT	1	1.25	0.00	0													
	2	1.25	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		41.80	62.00	314													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN TABLE B62  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	1.45	6.00 P	107	*****											
	2	1.45	0.00	0												
APRIL	1	2.05	0.00	0												
	2	2.05	6.00	107	*****											
MAY	1	2.95	0.00	0												
	2	2.95	6.00	107	*****											
JUNE	1	3.50	5.00	90	*****											
	2	3.50	6.00	107	*****											
JULY	1	3.80	6.00	107	*****											
	2	3.80	5.00	90	*****											
AUG	1	3.40	6.00	107	*****											
	2	3.40	0.00	0												
SEPT	1	2.50	3.00	54	*****											
	2	2.50	0.00	0												
OCT	1	1.25	0.00	0												
	2	1.25	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS	41.80	49.00	876													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: ALMONDS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

TABLE B63

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	6.00 P	108	*****												
MARCH	1	0.70	0.00	0													
	2	0.70	0.00	0													
APRIL	1	1.20	0.00	0													
	2	1.20	6.00	108	*****												
MAY	1	2.00	0.00	0													
	2	2.00	6.00	108	*****												
JUNE	1	2.50	0.00	0													
	2	2.50	6.00	108	*****												
JULY	1	2.80	6.00	108	*****												
	2	2.80	6.00	108	*****												
AUG	1	2.40	6.00	108	*****												
	2	2.40	0.00	0													
SEPT	1	1.10	0.00	0													
	2	1.10	0.00	0													
OCT	1	1.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.40	42.00	756													

P DESIGNATES A PREIRRIGATION

141

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: ALMONDS  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

TABLE B64

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE														
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180		
JAN	1	0.00	0.00	0														
	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
	2	0.00	5.00 P	154	*****													
MARCH	1	.70	0.00	0														
	2	.70	0.00	0														
APRIL	1	1.20	0.00	0														
	2	1.20	5.00	154	*****													
MAY	1	2.00	0.00	0														
	2	2.00	5.00	154	*****													
JUNE	1	2.50	0.00	0														
	2	2.50	5.00	154	*****													
JULY	1	2.80	5.00	154	*****													
	2	2.80	5.00	154	*****													
AUG	1	2.40	3.50	108	*****													
	2	2.40	0.00	0														
SEPT	1	1.10	0.00	0														
	2	1.10	0.00	0														
OCT	1	1.00	0.00	0														
	2	0.00	0.00	0														
NOV	1	0.00	0.00	0														
	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
	2	0.00	0.00	0														
TOTALS		26.40	33.50	1032														

P DESIGNATES A PREIRRIGATION

142

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: ALMONDS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

TABLE B65

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPEMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	6.00 P	13												
MAR	1	.70	0.00	0												
	2	.70	0.00	0												
APRIL	1	1.20	0.00	0												
	2	1.20	6.00	13												
MAY	1	2.00	0.00	0												
	2	2.00	6.00	13												
JUNE	1	2.50	0.00	0												
	2	2.50	6.00	13												
JULY	1	2.80	6.00	13												
	2	2.80	6.00	13												
AUG	1	2.40	6.00	13												
	2	2.40	0.00	0												
SEPT	1	1.10	0.00	0												
	2	1.10	0.00	0												
OCT	1	1.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		26.40	42.00	91												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN

TABLE B66

CROP: ALMONDS

TECHNIQUE: SOLID SET

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 68

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FFB	1	0.00	0.00	0													
	2	0.00	5.00 P	75	*****												
MARCH	1	.70	0.00	0													
	2	.70	0.00	0													
APRIL	1	1.20	0.00	0													
	2	1.20	5.00	75	*****												
MAY	1	2.00	0.00	0													
	2	2.00	5.00	75	*****												
JUNE	1	2.50	0.00	0													
	2	2.50	5.00	75	*****												
JULY	1	2.80	5.00	75	*****												
	2	2.80	5.00	75	*****												
AUG	1	2.40	3.50	52	*****												
	2	2.40	0.00	0													
SEPT	1	1.10	0.00	0													
	2	1.10	0.00	0													
OCT	1	1.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.40	33.50	502													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: GRAPES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 125

TABLE B67

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE														
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180		
JAN	1	0.00	0.00	0														
	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
	2	0.00	0.00	0														
MARCH	1	0.00	0.00	0														
	2	0.00	6.00 P	108	*****													
APRIL	1	.35	0.00	0														
	2	.35	0.00	0														
MAY	1	1.90	6.00	108	*****													
	2	1.90	0.00	0														
JUNE	1	2.90	6.00	108	*****													
	2	2.90	6.00	108	*****													
JULY	1	3.35	7.00	126	*****													
	2	3.35	6.00	108	*****													
AUG	1	2.75	6.00	108	*****													
	2	2.75	0.00	0														
SEPT	1	1.75	0.00	0														
	2	1.75	0.00	0														
OCT	1	.70	0.00	0														
	2	.70	0.00	0														
NOV	1	0.00	0.00	0														
	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
	2	0.00	0.00	0														
TOTALS		27.40	43.00	774														

P DESIGNATES A PREIRRIGATION

145

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN TABLE B68  
 CROP: GRAPES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	5.00 P	154	*****												
APRIL	1	.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	1	1.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	1.90	5.00	154	*****												
JUNE	1	2.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.90	6.00	185	*****												
JULY	1	3.35	6.00	185	*****												
	2	3.35	6.00	185	*****												
AUG	1	2.75	5.00	154	*****												
	2	2.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
SEPT	1	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS		27.40	33.00	1017	:	:	:	:	:	:	:	:	:	:	:	:	

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN

TABLE B69

CROP: GRAPES

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 68

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	6.00 P	13	:	*****	:	:	:	:	:	:	:	:	:	:
APRIL	1	.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	1.90	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
	2	1.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	2.90	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
	2	2.90	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
JULY	1	3.35	7.00	15	:	*****	:	:	:	:	:	:	:	:	:	:
	2	3.35	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
AUG	1	2.75	6.00	13	:	*****	:	:	:	:	:	:	:	:	:	:
	2	2.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		27.40	43.00	93	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN TABLE B70  
 CROP: GRAPES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 66  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACPE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	5.00 P	75	*****											
APRIL	1	.35	0.00	0												
	2	.35	0.00	0												
MAY	1	1.90	0.00	0												
	2	1.90	5.00	75	*****											
JUNE	1	2.90	0.00	0												
	2	2.90	6.00	90	*****											
JULY	1	3.35	6.00	90	*****											
	2	3.35	6.00	90	*****											
AUG	1	2.75	5.00	75	*****											
	2	2.75	0.00	0												
SEPT	1	1.75	0.00	0												
	2	1.75	0.00	0												
OCT	1	.70	0.00	0												
	2	.70	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.40	33.00	495												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: COTTON  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

TABLE B71

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	0.00	0.00	0													
	0.00	0.00	0													
FEB	0.00	0.00	0													
	0.00	9.00 P	189	*****												
MARCH	0.00	0.00	0													
	0.00	0.00	0													
APRIL	0.00	0.00	0													
	0.00	0.00	0													
MAY	.40	0.00	0													
	.40	7.00	147	*****												
JUNE	2.25	0.00	0													
	2.25	8.00	168	*****												
JULY	4.70	10.00	210	*****												
	4.70	8.00	168	*****												
AUG	4.25	6.00	126	*****												
	4.25	0.00	0													
SEPT	2.70	0.00	0													
	2.70	0.00	0													
OCT	1.30	0.00	0													
	0.00	0.00	0													
NOV	0.00	0.00	0													
	0.00	0.00	0													
DEC	0.00	0.00	0													
	0.00	0.00	0													
TOTALS	29.90	48.00	1008													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN TABLE B72  
 CROP: COTTON  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 32  
 FEET OF LIFT: 123

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	6.50 P	220	*****											
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	.40	0.00	0												
	2	.40	5.00	169	*****											
JUNE	1	2.25	3.00	101	*****											
	2	2.25	4.00	135	*****											
JULY	1	4.70	7.00	237	*****											
	2	4.70	7.00	237	*****											
AUG	1	4.25	3.00	101	*****											
	2	4.25	3.00	101	*****											
SEPT	1	2.70	0.00	0												
	2	2.70	0.00	0												
OCT	1	1.30	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		29.90	38.50	1301												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN  
 CROP: COTTON  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 68  
 FEET OF LIFT: 0

TABLE B7

ENERGY REQUIREMENTS

TIME	: WATER REQUIREMENT INCHES : CONSUMPTIVE : IRRIGATION : USE (ET) : SCHEDULE :	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE														
			0	5	10	15	20	25	30	35	40	45	50	55	60		
JAN	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 9.00 P 46	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	: 1 : .40 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : .40 7.00 36	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	: 1 : 2.25 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 2.25 8.00 41	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	: 1 : 4.70 10.00 51	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 4.70 8.00 41	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	: 1 : 4.25 6.00 30	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 4.25 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	: 1 : 2.70 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 2.70 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	: 1 : 1.30 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	: 1 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	: 2 : 0.00 0.00 0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	29.90 48.00	245	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION



IRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, UPPER SAN JOAQUIN

TABLE B74

CROP: COTTON

TECHNIQUE: HANDMOVE

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 68

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	6.50 P	116	*****												
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	.40	0.00	0													
	2	.40	5.00	90	*****												
JUNE	1	2.25	3.00	54	*****												
	2	2.25	4.00	72	*****												
JULY	1	4.70	7.00	125	*****												
	2	4.70	7.00	125	*****												
AUG	1	4.25	3.00	54	*****												
	2	4.25	3.00	54	*****												
SEPT	1	2.70	0.00	0													
	2	2.70	0.00	0													
OCT	1	1.30	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		29.90	38.50	690													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: COTTON  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 181

TABLE B75

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILGWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	9.00 P	256	*****												
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.20	0.00	0													
	2	.20	0.00	0													
MAY	1	.55	0.00	0													
	2	.55	7.00	199	*****												
JUNE	1	2.75	0.00	0													
	2	2.75	7.00	199	*****												
JULY	1	4.30	10.00	285	*****												
	2	4.30	9.00	256	*****												
AUG	1	4.10	8.00	228	*****												
	2	4.10	0.00	0													
SEPT	1	2.85	0.00	0													
	2	2.85	0.00	0													
OCT	1	1.20	0.00	0													
	2	1.20	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.90	50.00	1423													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: COTTON  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 181

TABLE B76

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330	360
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	6.00 P	248	*****											
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.20	0.00	0												
	2	.20	0.00	0												
MAY	1	.55	3.00	124	*****											
	2	.55	3.00	124	*****											
JUNE	1	2.75	0.00	0												
	2	2.75	6.00	248	*****											
JULY	1	4.30	8.00	330	*****											
	2	4.30	8.00	330	*****											
AUG	1	4.10	3.00	124	*****											
	2	4.10	3.00	124	*****											
SEPT	1	2.85	0.00	0												
	2	2.85	0.00	0												
OCT	1	1.20	0.00	0												
	2	1.20	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.90	40.00	1652												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: COTTON  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

TABLE B77

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACFE	KILOWATT-HOURS/ACFE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	9.00 P	46	*****												
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.20	0.00	0													
	2	.20	0.00	0													
MAY	1	.55	0.00	0													
	2	.55	7.00	36	*****												
JUNE	1	2.75	0.00	0													
	2	2.75	7.00	36	*****												
JULY	1	4.30	10.00	51	*****												
	2	4.30	9.00	46	*****												
AUG	1	4.10	8.00	41	*****												
	2	4.10	0.00	0													
SEPT	1	2.85	0.00	0													
	2	2.85	0.00	0													
OCT	1	1.20	0.00	0													
	2	1.20	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.90	50.00	256													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN

TABLE B78

CROP: COTTON

TECHNIQUE: HANDMOVE

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 43

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180																																																																																																																																																																																																																																																																																																																																																																																																																																																
JAN	1	0.00	0.00	0														2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	6.00 P	107	*****															MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716												
	2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	6.00 P	107	*****															MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																													
FEB	1	0.00	0.00	0														2	0.00	6.00 P	107	*****															MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																														
	2	0.00	6.00 P	107	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																			
	2	0.00	0.00	0													APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																				
APRIL	1	.20	0.00	0														2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																					
	2	.20	0.00	0													MAY	1	.55	3.00	54	*****																2	.55	3.00	54	*****															JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																						
MAY	1	.55	3.00	54	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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JUNE	1	2.75	0.00	0														2	2.75	6.00	107	*****															JULY	1	4.30	8.00	143	*****																2	4.30	8.00	143	*****															AUG	1	4.10	3.00	54	*****																2	4.10	3.00	54	*****															SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																															
	2	2.75	6.00	107	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
JULY	1	4.30	8.00	143	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	2	4.30	8.00	143	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
AUG	1	4.10	3.00	54	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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SEPT	1	2.85	0.00	0														2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																				
	2	2.85	0.00	0													OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																					
OCT	1	1.20	0.00	0														2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																						
	2	1.20	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																							
NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																																								
	2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																																																									
DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																																																																										
	2	0.00	0.00	0													TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																																																																																											
TOTALS		31.90	40.00	716																																																																																																																																																																																																																																																																																																																																																																																																																																																												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: SMALL GRAINS  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 57  
 FEET OF LIFT: 181

TABLE B7

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	2.00	0.00	0													
	2.00	0.00	0													
FEB	2.40	5.00	142	*****												
	2.40	0.00	0													
MARCH	2.10	0.00	0													
	2.10	5.00	142	*****												
APRIL	1.90	0.00	0													
	0.00	0.00	0													
MAY	0.00	0.00	0													
	0.00	0.00	0													
JUNE	0.00	0.00	0													
	0.00	0.00	0													
JULY	0.00	0.00	0													
	0.00	0.00	0													
AUG	0.00	0.00	0													
	0.00	0.00	0													
SEPT	0.00	0.00	0													
	0.00	0.00	0													
OCT	0.00	0.00	0													
	0.00	0.00	0													
NOV	0.00	0.00	0													
	0.00	0.00	0													
DEC	0.00	8.00 P	228	*****												
	1.90	0.00	0													
TOTALS	16.80	18.00	512													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B80  
 CROP: SMALL GRAINS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 57  
 FEET OF LIFT: 181

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	2.00	0.00	0													
	2	2.00	0.00	0													
FEB	1	2.40	4.00	165	*****												
	2	2.40	0.00	0													
MARCH	1	2.10	0.00	0													
	2	2.10	4.00	165	*****												
APRIL	1	1.90	0.00	0													
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	0.00	0.00	0													
	2	0.00	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	4.00 P	165	*****												
	2	1.90	0.00	0													
TOTALS		16.80	12.00	495													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: SMALL GRAINS  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

TABLE B81

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	2.00	0.00	0												
	2	2.00	0.00	0												
FEB	1	2.40	5.00	25	*****											
	2	2.40	0.00	0												
MARCH	1	2.10	0.00	0												
	2	2.10	5.00	25	*****											
APRIL	1	1.90	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	0.00	0												
	2	0.00	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	8.00 P	41	*****											
	2	1.90	0.00	0												
TOTALS		16.80	18.00	91												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B82  
 CROP: SMALL GRAINS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	2.00	0.00	0												
	2	2.00	0.00	0												
FEB	1	2.40	4.00	72	*****											
	2	2.40	0.00	0												
MARCH	1	2.10	0.00	0												
	2	2.10	4.00	72	*****											
APRIL	1	1.90	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	0.00	0												
	2	0.00	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	4.00 P	72	*****											
	2	1.90	0.00	0												
TOTALS		16.80	12.00	216												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 181

TABLE B83

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	.90	0.00	0												
	2	.90	0.00	0												
FEB	1	1.05	9.00 P	256	*****											
	2	1.05	0.00	0												
MARCH	1	1.95	0.00	0												
	2	1.95	0.00	0												
APRIL	1	2.10	5.00	142	*****											
	2	2.10	0.00	0												
MAY	1	2.70	5.00	142	*****											
	2	2.70	5.00	142	*****											
JUNE	1	3.40	6.00	171	*****											
	2	3.40	6.00	171	*****											
JULY	1	3.45	7.00	199	*****											
	2	3.45	7.00	199	*****											
AUG	1	3.30	6.00	171	*****											
	2	3.30	6.00	171	*****											
SEPT	1	2.35	5.00	142	*****											
	2	2.35	0.00	0												
OCT	1	1.50	0.00	0												
	2	1.50	0.00	0												
NOV	1	1.05	0.00	0												
	2	1.05	0.00	0												
DEC	1	.70	0.00	0												
	2	.70	0.00	0												
TOTALS		48.90	67.00	1906												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B84

CROP: ALFALFA

TECHNIQUE: HANDMOVE

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 57

FEET OF LIFT: 181

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	.90	0.00	0												
	2	.90	0.00	0												
FEB	1	1.05	6.00 P	248	*****											
	2	1.05	0.00	0												
MARCH	1	1.95	0.00	0												
	2	1.95	6.00	248	*****											
APRIL	1	2.10	0.00	0												
	2	2.10	4.00	165	*****											
MAY	1	2.70	0.00	0												
	2	2.70	4.00	165	*****											
JUNE	1	3.40	5.00	206	*****											
	2	3.40	6.00	248	*****											
JULY	1	3.45	6.00	248	*****											
	2	3.45	6.00	248	*****											
AUG	1	3.30	4.00	165	*****											
	2	3.30	3.00	124	*****											
SEPT	1	2.35	3.00	124	*****											
	2	2.35	0.00	0												
OCT	1	1.50	0.00	0												
	2	1.50	0.00	0												
NOV	1	1.05	0.00	0												
	2	1.05	0.00	0												
DEC	1	.70	0.00	0												
	2	.70	0.00	0												
TOTALS		48.90	53.00	2189												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITH PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

TABLE B85

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.90	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	1.05	9.00 P	46	*****												
	2	1.05	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.95	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.95	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	2.10	5.00	25	*****												
	2	2.10	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	2.70	5.00	25	*****												
	2	2.70	5.00	25	*****												
JUNE	1	3.40	6.00	30	*****												
	2	3.40	6.00	30	*****												
JULY	1	3.45	7.00	36	*****												
	2	3.45	7.00	36	*****												
AUG	1	3.30	6.00	30	*****												
	2	3.30	6.00	30	*****												
SEPT	1	2.35	5.00	25	*****												
	2	2.35	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	1.05	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.05	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		48.90	67.00	338	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREFIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B86  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	.90	0.00	0												
	2	.90	0.00	0												
FEB	1	1.05	6.00 P	107	*****											
	2	1.05	0.00	0												
MARCH	1	1.95	0.00	0												
	2	1.95	6.00	107	*****											
APRIL	1	2.10	0.00	0												
	2	2.10	4.00	72	*****											
MAY	1	2.70	0.00	0												
	2	2.70	4.00	72	*****											
JUNE	1	3.40	5.00	90	*****											
	2	3.40	6.00	107	*****											
JULY	1	3.45	6.00	107	*****											
	2	3.45	6.00	107	*****											
AUG	1	3.30	4.00	72	*****											
	2	3.30	3.00	54	*****											
SEPT	1	2.35	3.00	54	*****											
	2	2.35	0.00	0												
OCT	1	1.50	0.00	0												
	2	1.50	0.00	0												
NOV	1	1.05	0.00	0												
	2	1.05	0.00	0												
DEC	1	.70	0.00	0												
	2	.70	0.00	0												
TOTALS		48.90	53.00	949												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B87  
 CROP: GRAPES  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 181

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	0.00	0													
	2	0.00	0													
FEB	1	10.00 P	255	*****												
	2	0.00	0													
MARCH	1	0.00	0													
	2	0.00	0													
APRIL	1	0.00	0													
	2	0.00	0													
MAY	1	0.00	0													
	2	7.50	191	*****												
	1	0.00	0													
JUNE	2	8.00	204	*****												
	1	9.00	229	*****												
JULY	2	8.50	216	*****												
	1	8.00	204	*****												
AUG	2	0.00	0													
	1	0.00	0													
SEPT	2	0.00	0													
	1	0.00	0													
OCT	2	0.00	0													
	1	0.00	0													
NOV	2	0.00	0													
	1	0.00	0													
DEC	2	0.00	0													
	1	0.00	0													
TOTALS		51.00	1299													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B88  
 CROP: GRAPES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 57  
 FEET OF LIFT: 181

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	.50	0.00	0													
	2	.50	0.00	0													
FEB	1	.30	4.00 P	153	*****												
	2	.30	4.00 P	153	*****												
MARCH	1	.30	0.00	0													
	2	.30	0.00	0													
APRIL	1	.40	0.00	0													
	2	.40	0.00	0													
MAY	1	1.90	0.00	0													
	2	1.90	6.00	230	*****												
JUNE	1	2.80	0.00	0													
	2	2.80	7.00	268	*****												
JULY	1	3.20	7.00	268	*****												
	2	3.20	7.00	268	*****												
AUG	1	2.65	6.00	230	*****												
	2	2.65	0.00	0													
SEPT	1	1.80	0.00	0													
	2	1.80	0.00	0													
OCT	1	.65	0.00	0													
	2	.65	0.00	0													
NOV	1	.10	0.00	0													
	2	.10	0.00	0													
DEC	1	.25	0.00	0													
	2	.25	0.00	0													
TOTALS		29.70	41.00	1570													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN

TABLE B 1

CROP: GRAPES

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 43

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (PT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	.50	0.00	0													
	2	.50	0.00	0													
FEB	1	.30	10.00 P	21	*****												
	2	.30	0.00	0													
MARCH	1	.30	0.00	0													
	2	.30	0.00	0													
APRIL	1	.40	0.00	0													
	2	.40	0.00	0													
MAY	1	1.90	0.00	0													
	2	1.90	7.50	16	*****												
JUNE	1	2.80	0.00	0													
	2	2.80	8.00	17	*****												
JULY	1	3.20	9.00	19	*****												
	2	3.20	8.50	18	*****												
AUG	1	2.65	8.00	17	*****												
	2	2.65	0.00	0													
SEPT	1	1.80	0.00	0													
	2	1.80	0.00	0													
OCT	1	.65	0.00	0													
	2	.65	0.00	0													
NOV	1	.10	0.00	0													
	2	.10	0.00	0													
DEC	1	.25	0.00	0													
	2	.25	0.00	0													
TOTALS		29.70	51.00	108													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, LOWER SAN JOAQUIN TABLE B90  
 CROP: GRAPES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 43  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (E1)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.50	0.00	0													
	2	.50	0.00	0													
PEB	1	.30	4.00 P	60	*****												
	2	.30	4.00 P	60	*****												
MARCH	1	.30	0.00	0													
	2	.30	0.00	0													
APRIL	1	.40	0.00	0													
	2	.40	0.00	0													
MAY	1	1.90	9.00	0													
	2	1.90	6.00	90	*****												
JUNE	1	2.80	0.00	0													
	2	2.80	7.00	104	*****												
JULY	1	3.20	7.00	104	*****												
	2	3.20	7.00	104	*****												
AUG	1	2.65	6.00	90	*****												
	2	2.65	0.00	0													
SEPT	1	1.80	0.00	0													
	2	1.80	0.00	0													
OCT	1	.65	0.00	0													
	2	.65	0.00	0													
NOV	1	.10	0.00	0													
	2	.10	0.00	0													
DEC	1	.25	0.00	0													
	2	.25	0.00	0													
TOTALS		29.70	41.00	612													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B9  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 2  
 FEET OF LIFT: 124

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1.30	0.00	0													
JAN	1.30	0.00	0													
FEB	1.50	0.00	0													
FEB	1.50	9.00 P	163	*****												
MARCH	3.10	0.00	0													
MARCH	3.10	0.00	0													
APRIL	3.50	0.00	0													
APRIL	3.50	6.00	109	*****												
MAY	4.65	0.00	0													
MAY	4.65	6.00	109	*****												
JUNE	5.45	6.00	109	*****												
JUNE	5.45	8.00	145	*****												
JULY	6.10	8.00	145	*****												
JULY	6.10	10.00	181	*****												
AUG	4.40	8.00	145	*****												
AUG	4.40	6.00	109	*****												
SEPT	4.60	5.00	91	*****												
SEPT	4.60	0.00	0													
OCT	2.90	0.00	0													
OCT	2.90	0.00	0													
NOV	1.85	0.00	0													
NOV	1.85	0.00	0													
DEC	.95	0.00	0													
DEC	.95	0.00	0													
TOTALS	80.60	72.00	1306													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA  
 CROP: ALFALFA  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 98  
 FEET OF LIFT: 0

TABLE B92

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1.30	0.00	0													
JAN	2	0.00	0													
FFB	1	0.00	0													
FFB	2	9.00 P	19	*****												
MARCH	1	0.00	0													
MARCH	2	0.00	0													
APRIL	1	0.00	0													
APRIL	2	6.00	13	*****												
MAY	1	0.00	0													
MAY	2	6.00	13	*****												
JUNP	1	6.00	13	*****												
JUNP	2	8.00	17	*****												
JULY	1	8.00	17	*****												
JULY	2	10.00	21	*****												
AUG	1	8.00	17	*****												
AUG	2	6.00	13	*****												
SEPT	1	5.00	10	*****												
SEPT	2	0.00	0													
OCT	1	0.00	0													
OCT	2	0.00	0													
NOV	1	0.00	0													
NOV	2	0.00	0													
DEC	1	0.00	0													
DEC	2	0.00	0													
TOTALS	80.60	72.00	153													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B93  
 CROP: SMALL GRAINS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 2  
 FEET OF LIFT: 124

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	1.10	0.00	0												
	2	1.10	8.00 P	145	*****											
FEB	1	1.80	0.00	0												
	2	1.80	0.00	0												
MARCH	1	3.70	8.00	145	*****											
	2	3.70	0.00	0												
APRIL	1	3.50	0.00	0												
	2	3.50	6.00	109	*****											
MAY	1	.90	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	0.00	0												
	2	0.00	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	10.00 P	181	*****											
DEC	1	0.00	0.00	0												
	2	.50	0.00	0												
TOTALS		21.60	32.00	580												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B94  
 CROP: SMALL GRAINS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP LACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 98  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	1.10	0.00	0													
	2	1.10	8.00 P	17	*****												
FEB	1	1.80	0.00	0													
	2	1.80	0.00	0													
MARCH	1	3.70	8.00	17	*****												
	2	3.70	0.00	0													
APRIL	1	3.50	0.00	0													
	2	3.50	6.00	13	*****												
MAY	1	.90	0.00	0													
	2	0.00	0.00	0													
JUNE	1	0.00	0.00	0													
	2	0.00	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	10.00 P	21	*****												
DEC	1	0.00	0.00	0													
	2	.50	0.00	0													
TOTALS		21.60	32.00	68													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA      TABLE B95  
 CROP: SUGAR BEETS  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 2  
 FEET OF LIFT: 124

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	1.45	0.00	0													
	2	1.45	6.00	109	*****												
FEB	1	1.95	0.00	0													
	2	1.95	6.00	109	*****												
MARCH	1	2.60	0.00	0													
	2	2.60	0.00	0													
APRIL	1	4.00	0.00	0													
	2	4.00	0.00	0													
MAY	1	4.90	0.00	0													
	2	4.90	0.00	0													
JUNE	1	4.40	0.00	0													
	2	4.40	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	9.00 P	163	*****												
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	8.00	145	*****												
	2	0.00	8.00	145	*****												
OCT	1	.95	0.00	0													
	2	.95	8.00	145	*****												
NOV	1	1.20	0.00	0													
	2	1.20	7.00	127	*****												
DEC	1	1.30	0.00	0													
	2	1.30	7.00	127	*****												
TOTALS		45.50	59.00	1070													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B96 :  
 CROP: SUGAR BEETS :  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK :  
 WATER SOURCE: SURFACE WATER :  
 PERCENT SURFACE WATER: 98 :  
 FEET OF LIFT: 0 :

ENERGY REQUIREMENTS

YEAR	WATER REQUIREMENT INCHES : CONSUMPTIVE : IRRIGATION : USE (ET) : SCHEDULE :	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE														
			0	5	10	15	20	25	30	35	40	45	50	55	60		
JAN	1	1.45	0.00	0													
	2	1.45	6.00	13	*****												
FEB	1	1.95	0.00	0													
	2	1.95	6.00	13	*****												
MARCH	1	2.60	0.00	0													
	2	2.60	0.00	0													
APRIL	1	4.00	0.00	0													
	2	4.00	0.00	0													
MAY	1	4.90	0.00	0													
	2	4.90	0.00	0													
JUNE	1	4.40	0.00	0													
	2	4.40	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	9.00 P	19	*****												
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	8.00	17	*****												
	2	0.00	8.00	17	*****												
OCT	1	.95	0.00	0													
	2	.95	8.00	17	*****												
NOV	1	1.20	0.00	0													
	2	1.20	7.00	15	*****												
DEC	1	1.30	0.00	0													
	2	1.30	7.00	15	*****												
TOTALS		45.50	59.00	126													

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA  
 CROP: SORGHUM  
 TECHNIQUE: GATED PIPE WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 2  
 FEET OF LIFT: 124

TABLE B97

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE														
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180		
JAN	1	0.00	0.00	0														
	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
	2	0.00	0.00	0														
MARCH	1	0.00	0.00	0														
	2	0.00	0.00	0														
APRIL	1	0.00	0.00	0														
	2	0.00	0.00	0														
MAY	1	0.00	0.00	0														
	2	0.00	0.00	0														
JUNE	1	0.00	8.00 P	145	*****													
	2	0.00	0.00	0														
JULY	1	.60	7.00	127	*****													
	2	3.20	6.00	109	*****													
AUG	1	5.25	7.00	127	*****													
	2	6.72	6.00	109	*****													
SEPT	1	4.80	6.00	109	*****													
	2	2.85	0.00	0														
OCT	1	1.50	0.00	0														
	2	.48	0.00	0														
NOV	1	0.00	0.00	0														
	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
	2	0.00	0.00	0														
TOTALS		25.40	40.00	726														

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B98  
 CHOP: SORGHUM  
 TECHNIQUE: GATED PIPE WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 98  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
MAY	2	0.00	0.00	0												
JUNE	1	0.00	8.00 P	17												
JUNE	2	0.00	0.00	0												
JULY	1	.60	7.00	15												
JULY	2	3.20	6.00	13												
AUG	1	5.25	7.00	15												
AUG	2	6.72	6.00	13												
SEPT	1	4.80	6.00	13												
SEPT	2	2.85	0.00	0												
OCT	1	1.50	0.00	0												
OCT	2	.48	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		25.40	40.00	86												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA      TABLE B99  
 CROP: LETTUCE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 2  
 FEET OF LIFT: 124

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN		0.00	0													
JAN		0.00	0													
FEB		0.00	0													
FEB		0.00	0													
MARCH		0.00	0													
MARCH		0.00	0													
APRIL		0.00	0													
APRIL		0.00	0													
MAY		0.00	0													
MAY		0.00	0													
JUNE		0.00	0													
JUNE		0.00	0													
JULY		6.00 P	109	*****												
JULY		6.00	109	*****												
AUG		6.00	109	*****												
AUG		0.00	0													
SEPT		6.00 P	109	*****												
SEPT		0.00	0													
OCT		6.00	109	*****												
OCT		0.00	0													
NOV		6.00	109	*****												
NOV		0.00	0													
DEC		0.00	0													
DEC		0.00	0													
TOTALS	0.00	36.00	654													

INFORMATION NOT AVAILABLE

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, IMPERIAL COACHELLA TABLE B100  
 CROP: LETTUCE  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 98  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0													
JAN	2	0.00	0													
FEB	1	0.00	0													
FEB	2	0.00	0													
MARCH	1	0.00	0													
MARCH	2	0.00	0													
APRIL	1	0.00	0													
APRIL	2	0.00	0													
MAY	1	0.00	0													
MAY	2	0.00	0													
JUNE	1	0.00	0													
JUNE	2	0.00	0													
JULY	1	6.00 P	13													
JULY	2	6.00	13													
AUG	1	6.00	13													
AUG	2	0.00	0													
SEPT	1	6.00 P	13													
SEPT	2	0.00	0													
OCT	1	6.00	13													
OCT	2	0.00	0													
NOV	1	6.00	13													
NOV	2	0.00	0													
DEC	1	0.00	0													
DEC	2	0.00	0													
TOTALS		0.00	36.00	78												

INFORMATION NOT AVAILABLE

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST  
 CROP: LETTUCE (THREE CROPS)  
 TECHNIQUE: GATED PIPE WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 98  
 FEET OF LIFT: 103

TABLE B101

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	1.55	2.00 S	62	*****											
	2	1.55	5.00	77	*****											
FEB	1	1.95	0.00	0												
	2	1.95	5.00	77	*****											
MARCH	1	2.00	0.00	0												
	2	2.00	4.00	62	*****											
APRIL	1	0.00	2.00 P, S	62	*****											
	2	2.35	2.00 S	62	*****											
MAY	1	2.35	0.00	0												
	2	2.45	5.00	77	*****											
JUNE	1	2.45	0.00	0												
	2	2.65	5.00	77	*****											
JULY	1	2.65	4.00	62	*****											
	2	0.00	2.00 P, S	62	*****											
AUG	1	1.95	2.00 S	62	*****											
	2	2.40	5.00	77	*****											
SEPT	1	2.40	5.00	77	*****											
	2	2.00	4.00	62	*****											
OCT	1	2.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	2.00 P, S	62	*****											
TOTALS		36.65	54.00	1020												

P DESIGNATES A PREIRRIGATION, S SPRINKLER

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST

TABLE B102:

CROP: LETTUCE (THREE CROPS)

TECHNIQUE: GATED PIPE WITHOUT PUMPBACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 2

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE										
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50
JAN	1.55	2.00 S	36	*****										
	2	5.00	10	*****										
FEB	1.95	0.00	0											
	2	5.00	10	*****										
MARCH	2.00	0.00	0											
	2	4.00	8	*****										
APRIL	0.00	2.00 P, S	36	*****										
	2	2.00 S	36	*****										
MAY	2.35	0.00	0											
	2	5.00	10	*****										
JUNE	2.45	0.00	0											
	2	5.00	10	*****										
JULY	2.65	4.00	8	*****										
	2	2.00 P, S	36	*****										
AUG	1.95	2.00 S	36	*****										
	2	5.00	10	*****										
SEPT	2.40	5.00	10	*****										
	2	4.00	8	*****										
OCT	2.00	0.00	0											
	2	0.00	0											
NOV	0.00	0.00	0											
	2	0.00	0											
DEC	0.00	0.00	0											
	2	2.00 P, S	36	*****										
TOTALS	36.65	54.00	300											

P DESIGNATES A PREIRRIGATION, S SPRINKLER

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST  
 CROP: ALFALFA  
 TECHNIQUE: HANDNOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 98  
 FEET OF LIFT: 103

TABLE B103

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	1.50	0.00	0													
	2	1.50	4.00 P	125	*****												
APRIL	1	1.95	0.00	0													
	2	1.95	4.00	125	*****												
MAY	1	2.60	0.00	0													
	2	2.60	5.00	156	*****												
JUNE	1	2.90	0.00	0													
	2	2.90	6.00	187	*****												
JULY	1	3.25	4.00	125	*****												
	2	3.25	4.00	125	*****												
AUG	1	3.10	4.00	125	*****												
	2	3.10	4.00	125	*****												
SEPT	1	2.50	6.00	187	*****												
	2	2.50	0.00	0													
OCT	1	1.90	4.00	125	*****												
	2	1.90	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		39.40	45.00	1405													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 2  
 FEET OF LIFT: 0

TABLE B104

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
MARCH	1	1.50	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	1.50	72	:	*****												
APRIL	1	1.95	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	1.95	72	:	*****												
MAY	1	2.60	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.60	90	:	*****												
JUNE	1	2.90	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.90	107	:	*****												
JULY	1	3.25	72	:	*****												
	2	3.25	72	:	*****												
AUG	1	3.10	72	:	*****												
	2	3.10	72	:	*****												
SEPT	1	2.50	107	:	*****												
	2	2.50	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	1.90	72	:	*****												
	2	1.90	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS	39.40	45.00	808	:	:	:	:	:	:	:	:	:	:	:	:	:	

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST

TABLE B105

CROP: DRY BEANS

TECHNIQUE: GATED PIPE WITHOUT PUMPBACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER : 98

FEET OF LIFT: 103

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRF	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	5.00 P	77	*****												
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	1.70	5.00	77	*****												
	2	1.80	0.00	0													
JULY	1	3.50	5.00	77	*****												
	2	3.80	0.00	0													
AUG	1	1.80	5.00	77	*****												
	2	1.70	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		14.30	20.00	308													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST

TABLE B106

CROP: DRY BEANS

TECHNIQUE: HANDMOVE

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER : 98

FEET OF LIFT: 103

ENERGY REQUIREMENTS

YEAR	DATE	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	4.00 P	125	*****												
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	1.70	3.00	94	*****												
	2	1.80	0.00	0													
JULY	1	3.50	2.00	62	*****												
	2	3.80	2.00	62	*****												
AUG	1	1.80	3.00	94	*****												
	2	1.70	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		14.30	14.00	437													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST

TABLE B107

CROP: DRY BEANS

TECHNIQUE: GATED PIPE WITHOUT PUMPBACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 2

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	5.00 P	10												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	1.70	5.00	10												
	2	1.80	0.00	0												
JULY	1	3.50	5.00	10												
	2	3.80	0.00	0												
AUG	1	1.80	5.00	10												
	2	1.70	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		14.30	20.00	40												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA, CENTRAL COAST  
 CROP: DRY BEANS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 2  
 FEET OF LIFT: 0

TABLE B108

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHFS		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	4.00 P	72	*****											
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	1.70	3.00	54	*****											
	2	1.80	0.00	0												
JULY	1	3.50	2.00	36	*****											
	2	3.80	2.00	36	*****											
AUG	1	1.80	3.00	54	*****											
	2	1.70	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		14.30	14.00	252												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE E109

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 45

FEET OF LIFT: 120

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	1.20	3.00	47	*****												
	2	1.20	3.00	47	*****												
JUNE	1	2.92	3.00	47	*****												
	2	2.92	4.00	63	*****												
JULY	1	3.19	5.00	79	*****												
	2	3.19	5.00	79	*****												
AUG	1	2.95	4.00	63	*****												
	2	2.95	4.00	63	*****												
SEPT	1	2.33	3.00	47	*****												
	2	2.33	3.00	47	*****												
OCT	1	1.00	0.00	0													
	2	1.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		27.18	37.00	582													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B110

CROP: CORN

TECHNIQUE: CENTER PIVOT

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 45

FEET OF LIFT: 120

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
APRIL	2	0.00	0.00	0													
MAY	1	1.20	1.00	39	*****												
MAY	2	1.20	1.00	39	*****												
JUNE	1	2.92	1.00	39	*****												
JUNE	2	2.92	3.00	118	*****												
JULY	1	3.19	4.00	157	*****												
JULY	2	3.19	4.00	157	*****												
AUG	1	2.95	4.00	157	*****												
AUG	2	2.95	3.00	118	*****												
SEPT	1	2.33	3.00	118	*****												
SEPT	2	2.33	0.00	0													
OCT	1	1.00	0.00	0													
OCT	2	1.00	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		27.18	24.00	942													

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE BILL

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 55

FEET OF LIFT: 13

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	1.20	3.00	6	*****											
	2	1.20	3.00	6	*****											
JUNE	1	2.92	3.00	6	*****											
	2	2.92	4.00	8	*****											
JULY	1	3.19	5.00	10	*****											
	2	3.19	5.00	10	*****											
AUG	1	2.95	4.00	8	*****											
	2	2.95	4.00	8	*****											
SEPT	1	2.33	3.00	6	*****											
	2	2.33	3.00	6	*****											
OCT	1	1.00	0.00	0												
	2	1.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.18	37.00	74												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B112

CROP: CORN

TECHNIQUE: CENTER PIVOT

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 55

FEET OF LIFT: 13

ENERGY REQUIREMENTS

TIME	:	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
		CONSUMPTIVE USE (FI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	:	1.20	1.00	26	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
	:	1.20	1.00	26	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	:	2.92	1.00	26	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
	:	2.92	3.00	77	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
JULY	:	3.19	4.00	102	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
	:	3.19	4.00	102	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
AUG	:	2.95	4.00	102	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
	:	2.95	3.00	77	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	:	2.33	3.00	77	:	*****	:	:	:	:	:	:	:	:	:	:	:	:
	:	2.33	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	:	1.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	1.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	:	27.18	24.00	615	:	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B11

CROP: HAY

TECHNIQUE: OPEN LITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 45

FEET OF LIFT: 120

ENERGY REQUIREMENTS

TIME	:	WATER REQUIREMENT INCREAS :		PUMPING ENERGY													
		CONSUMPTION :	IRIGATION :	FLUORENEM :	0	10	20	30	40	50	60	70	80	90	100	110	120
		USE ( ) :	SCHEDULE :	FEET/ACRE :	KILOWATT-HOURS/ACRE												
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.27	3.00	47	*****												
	2	.27	3.00	47	*****												
MAY	1	2.69	3.00	47	*****												
	2	2.69	4.00	63	*****												
JUNE	1	3.10	5.00	79	*****												
	2	3.10	6.00	95	*****												
JULY	1	3.38	6.00	95	*****												
	2	3.38	6.00	95	*****												
AUG	1	3.13	6.00	95	*****												
	2	3.13	6.00	95	*****												
SEPT	1	2.48	5.00	79	*****												
	2	2.48	5.00	79	*****												
OCT	1	1.85	0.00	0													
	2	1.85	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		33.80	58.00	916													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO  
 CROP: HAY  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 45  
 FEET OF LIFT: 120

TABLE B114

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.27	2.00	79	*****												
	2	.27	2.00	79	*****												
MAY	1	2.69	2.00	79	*****												
	2	2.69	3.00	118	*****												
JUNE	1	3.10	3.00	118	*****												
	2	3.10	4.00	157	*****												
JULY	1	3.38	4.00	157	*****												
	2	3.38	4.50	177	*****												
AUG	1	3.13	4.00	157	*****												
	2	3.13	4.00	157	*****												
SEPT	1	2.48	3.00	118	*****												
	2	2.48	3.00	118	*****												
OCT	1	1.85	0.00	0													
	2	1.85	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		33.80	38.50	1514													

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B115

CROP: HAY

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 55

FEET OF LIFT: 13

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	0.00	0													
MARCH	0.00	0.00	0													
APRIL	.27	3.00	6													
APRIL	.27	3.00	6													
MAY	2.69	3.00	6													
MAY	2.69	4.00	8													
JUNE	3.10	5.00	10													
JUNE	3.10	6.00	12													
JULY	3.38	6.00	12													
JULY	3.38	6.00	12													
AUG	3.13	6.00	12													
AUG	3.13	6.00	12													
SEPT	2.48	5.00	10													
SEPT	2.48	5.00	10													
OCT	1.85	0.00	0													
OCT	1.85	0.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	33.80	58.00	116													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B116

CROP: HAY

TECHNIQUE: CENTER PIVOT

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 55

FEET OF LIFT: 13

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
PPB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	.27	2.00	51	*****												
	2	.27	2.00	51	*****												
MAY	1	2.69	2.00	51	*****												
	2	2.69	3.00	77	*****												
JUNE	1	3.10	3.00	77	*****												
	2	3.10	4.00	102	*****												
JULY	1	3.38	4.00	102	*****												
	2	3.38	4.50	115	*****												
AUG	1	3.13	4.00	102	*****												
	2	3.13	4.00	102	*****												
SEPT	1	2.48	3.00	77	*****												
	2	2.48	3.00	77	*****												
OCT	1	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.85	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		33.80	38.50	984	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO

TABLE B11

CROP: SMALL GRAINS (WINTER WHEAT)

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 45

FEET OF LIFT: 120

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	.50	3.00	47	*****												
	2	.70	0.00	0													
APRIL	1	1.00	4.00	63	*****												
	2	1.40	0.00	0													
MAY	1	1.80	4.00	63	*****												
	2	2.20	0.00	0													
JUNE	1	2.20	4.00	63	*****												
	2	1.60	0.00	0													
JULY	1	.70	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	1.50	0.00	0													
OCT	1	1.40	6.00 P	95	*****												
	2	1.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		16.00	21.00	331													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO  
 CROP: SMALL GRAINS (WINTER WHEAT)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 45  
 FEET OF LIFT: 120

TABLE B118

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	.50	1.20	47	*****												
	2	.70	0.00	0													
APRIL	1	1.00	1.00	39	*****												
	2	1.40	1.50	59	*****												
MAY	1	1.80	1.70	67	*****												
	2	2.20	2.10	83	*****												
JUNE	1	2.20	2.10	83	*****												
	2	1.60	1.50	59	*****												
JULY	1	.70	1.00	39	*****												
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	1.50	0.00	0													
OCT	1	1.40	2.00 P	79	*****												
	2	1.00	2.00 P	79	*****												
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		16.00	16.10	634													

IRRIGATION SCHEDULE AND PUMPING

TABLE B119

ENERGY REQUIREMENTS

REGION: COLORADO  
 CROP: SMALL GRAINS (WINTER WHEAT)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 55  
 FEET OF LIFT: 13

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	.50	3.00	6	*****											
	2	.70	0.00	0												
APRIL	1	1.00	4.00	8	*****											
	2	1.40	0.00	0												
MAY	1	1.80	4.00	8	*****											
	2	2.20	0.00	0												
JUNE	1	2.20	4.00	8	*****											
	2	1.60	0.00	0												
JULY	1	.70	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	1.50	0.00	0												
OCT	1	1.40	6.00 P	12	*****											
	2	1.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		16.00	21.00	42												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: COLORADO  
 CROP: SMALL GRAINS (WINTER WHEAT)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 55  
 FEET OF LIFT: 13

TABLE B120

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	.50	1.20	31	*****												
	2	.70	0.00	0													
APRIL	1	1.00	1.00	26	*****												
	2	1.40	1.50	38	*****												
MAY	1	1.80	1.70	43	*****												
	2	2.20	2.10	54	*****												
JUNE	1	2.20	2.10	54	*****												
	2	1.60	1.50	38	*****												
JULY	1	.70	1.00	26	*****												
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	1.50	0.00	0													
OCT	1	1.40	2.00 P	51	*****												
	2	1.00	2.00 P	51	*****												
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		16.00	16.10	412													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: SUGAR CANE  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

TABLE B121

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	1.50	1.75	57	*****												
	2	1.50	1.75	57	*****												
FEB	1	1.50	1.75	57	*****												
	2	1.50	1.75	57	*****												
MARCH	1	1.75	2.50	81	*****												
	2	1.75	2.50	81	*****												
APRIL	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
MAY	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
JUNE	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
JULY	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
AUG	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
SEPT	1	3.50	5.00	163	*****												
	2	3.50	5.00	163	*****												
OCT	1	1.75	3.00	98	*****												
	2	1.75	3.00	98	*****												
NOV	1	1.75	2.00	65	*****												
	2	1.75	2.00	65	*****												
DEC	1	1.50	1.75	57	*****												
	2	1.50	1.75	57	*****												
TOTALS		61.50	85.50	2786													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: SUGAR CANE  
 TECHNIQUE: DRIP  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

TABLE B122

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRL	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1.50	1.00	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JAN	2	1.50	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	1.50	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	2	1.50	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.75	60	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	2	1.75	60	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	2	3.50	139	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.75	80	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	2	1.75	80	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	1.75	60	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	2	1.75	60	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	1.50	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	2	1.50	40	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	61.50	58.00	2308	:	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: SUGAR CANE  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

TABLE B123

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	1.50	1.75	1	*											
	2	1.50	1.75	1	*											
FEB	1	1.50	1.75	1	*											
	2	1.50	1.75	1	*											
MARCH	1	1.75	2.50	1	*											
	2	1.75	2.50	1	*											
APRIL	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
MAY	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
JUNE	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
JULY	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
AUG	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
SEPT	1	3.50	5.00	1	*											
	2	3.50	5.00	1	*											
OCT	1	1.75	3.00	1	*											
	2	1.75	3.00	1	*											
NOV	1	1.75	2.00	1	*											
	2	1.75	2.00	1	*											
DEC	1	1.50	1.75	1	*											
	2	1.50	1.75	1	*											
TOTALS		61.50	85.50	24												

\* DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: SUGAR CANE  
 TECHNIQUE: DRIP  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

TABLE B124

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACFE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	1.50	1.00	7	*****											
	2	1.50	1.00	7	*****											
FEB	1	1.50	1.00	7	*****											
	2	1.50	1.00	7	*****											
MARCH	1	1.75	1.50	11	*****											
	2	1.75	1.50	11	*****											
APRIL	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
MAY	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
JUNE	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
JULY	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
AUG	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
SEPT	1	3.50	3.50	26	*****											
	2	3.50	3.50	26	*****											
OCT	1	1.75	2.00	15	*****											
	2	1.75	2.00	15	*****											
NOV	1	1.75	1.50	11	*****											
	2	1.75	1.50	11	*****											
DEC	1	1.50	1.00	7	*****											
	2	1.50	1.00	7	*****											
TOTALS		61.50	58.00	428												

IRRIGATION SCHEDULE AND PUMPING

TABLE B125

REGION: HAWAII  
 CROP: PINEAPPLE  
 TECHNIQUE: MECHANICAL HOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	.25	0.00	0													
	2	.25	.50	31	*****												
FEB	1	.25	0.00	0													
	2	.25	.50	31	*****												
MARCH	1	.25	0.00	0													
	2	.25	.50	31	*****												
APRIL	1	.25	0.00	0													
	2	.25	.50	31	*****												
MAY	1	.25	0.00	0													
	2	.25	.50	31	*****												
JUNE	1	.50	0.00	0													
	2	.50	.50	31	*****												
JULY	1	.50	0.00	0													
	2	.50	.50	31	*****												
AUG	1	.50	0.00	0													
	2	.50	.50	31	*****												
SEPT	1	.25	0.00	0													
	2	.25	.50	31	*****												
OCT	1	.25	0.00	0													
	2	.25	.50	31	*****												
NOV	1	.25	0.00	0													
	2	.25	.50	31	*****												
DEC	1	.25	0.00	0													
	2	.25	.50	31	*****												
TOTALS		7.50	6.00	372													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B126

REGION: HAWAII  
 CROP: PINEAPPLE  
 TECHNIQUE: MECHANICAL NOVL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.50	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.50	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.50	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.25	.50	15	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		7.50	6.00	180	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: VEGETABLES (LETTUCE-COIT CROP)  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

TABLE B127

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	151	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.80	63	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	43.20	51.00	2568	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: VEGETABLES (LETTUCE-CONT CROP)  
 TECHNIQUE: DRIP  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

TABLE B128

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110
JAN	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
FEB	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
MARCH	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
APRIL	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
MAY	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
JUNE	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
JULY	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
AUG	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
SEPT	1	1.80	2.50	99	*****										
	2	1.80	2.50	99	*****										
OCT	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
NOV	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
DEC	1	1.80	1.00	40	*****										
	2	1.80	1.00	40	*****										
TOTALS	43.20	42.00	1668												

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: VEGETABLES (LETTUCE-CONT CROP)  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

TABLE B129

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT KWH/ACRE	KILOWATT-HOURS/ACFE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55
JAN	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
FEB	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
MARCH	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
APRIL	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
MAY	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
JUNE	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
JULY	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
AUG	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
SEPT	1	1.80	3.00	54	*****										
	2	1.80	3.00	54	*****										
OCT	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
NOV	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
DEC	1	1.80	1.25	22	*****										
	2	1.80	1.25	22	*****										
TOTALS	43.20	51.00	912												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: VEGETABLES (LETTUCE-CONT CROP)  
 TECHNIQUE: DRIP  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

TABLE B130

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
FEB	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
MARCH	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
APRIL	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
MAY	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
JUNE	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
JULY	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
AUG	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
SEPT	1	1.80	2.50	19	*****											
	2	1.80	2.50	19	*****											
OCT	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
NOV	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
DEC	1	1.80	1.00	7	*****											
	2	1.80	1.00	7	*****											
TOTALS	43.20	42.00	312													

IRRIGATION SCHEDULE AND PUMPING

TABLE B13T

REGION: HAWAII  
 CROP: PAPAYA  
 TECHNIQUE: DRIP  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 60  
 FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
FEB	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
MARCH	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
APRIL	1	6.00	4.50	179	*****												
	2	6.00	4.50	179	*****												
MAY	1	7.00	4.50	179	*****												
	2	7.00	4.50	179	*****												
JUNE	1	7.00	4.50	179	*****												
	2	7.00	4.50	179	*****												
JULY	1	7.00	4.50	179	*****												
	2	7.00	4.50	179	*****												
AUG	1	7.00	4.50	179	*****												
	2	7.00	4.50	179	*****												
SEPT	1	6.00	4.50	179	*****												
	2	6.00	4.50	179	*****												
OCT	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
NOV	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
DEC	1	2.00	2.50	99	*****												
	2	2.00	2.50	99	*****												
TOTALS	104.00	84.00	3336														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: HAWAII  
 CROP: PAPAYA  
 TECHNIQUE: DRIP  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 40  
 FEET OF LIFT: 0

TABLE B132

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55
JAN	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
FEB	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
MARCH	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
APRIL	1	6.00	4.50	34	*****										
	2	6.00	4.50	34	*****										
MAY	1	7.00	4.50	34	*****										
	2	7.00	4.50	34	*****										
JUNE	1	7.00	4.50	34	*****										
	2	7.00	4.50	34	*****										
JULY	1	7.00	4.50	34	*****										
	2	7.00	4.50	34	*****										
AUG	1	7.00	4.50	34	*****										
	2	7.00	4.50	34	*****										
SEPT	1	6.00	4.50	34	*****										
	2	6.00	4.50	34	*****										
OCT	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
NOV	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
DEC	1	2.00	2.50	19	*****										
	2	2.00	2.50	19	*****										
TOTALS	104.00	84.00	636												

IRRIGATION SCHEDULE AND PUMPING

DESIGN: IDAHO

TABLE B133

CROP: ALFALFA

TECHNIQUE: OPEN DITCH W/PROJECT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 29

FEET OF LIFT: 252

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	3.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	.62	4.00	131	*****												
MAY	1	1.46	0.00	0													
	2	1.46	7.00	230	*****												
JUNE	1	2.90	6.00	197	*****												
	2	2.90	6.00	197	*****												
JULY	1	3.85	6.00	197	*****												
	2	3.85	6.00	197	*****												
AUG	1	3.19	5.00	164	*****												
	2	3.19	6.00	197	*****												
SEPT	1	1.76	6.00	197	*****												
	2	1.76	0.00	0													
OCT	1	.98	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		27.92	52.00	1707													

P DESIGNATES A PREFERRED IRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 29  
 FEET OF LIFT: 252

TABLE B134

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	50	80	100	120	140	160	180	200	220
JAN	1	0.00	0												
	2	0.00	0												
FEB	1	0.00	0												
	2	0.00	0												
MARCH	1	0.00	0												
	2	0.00	0												
APRIL	1	0.00	0												
	2	.62	111	*****											
MAY	1	1.46	111	*****											
	2	1.46	222	*****											
JUNE	1	2.90	222	*****											
	2	2.90	222	*****											
JULY	1	3.85	222	*****											
	2	3.85	222	*****											
AUG	1	3.19	222	*****											
	2	3.19	222	*****											
SEPT	1	1.76	222	*****											
	2	1.76	0												
OCT	1	.98	0												
	2	0.00	0												
NOV	1	0.00	0												
	2	0.00	0												
DEC	1	0.00	0												
	2	0.00	0												
TOTALS	27.92	39.60	1998												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: ALFALFA  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B135

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	.62	4.00	8	*****											
MAY	1	1.46	0.00	0												
	2	1.46	7.00	14	*****											
JUNE	1	2.90	6.00	12	*****											
	2	2.90	6.00	12	*****											
JULY	1	3.85	6.00	12	*****											
	2	3.85	6.00	12	*****											
AUG	1	3.19	5.00	10	*****											
	2	3.19	6.00	12	*****											
SEPT	1	1.76	6.00	12	*****											
	2	1.76	0.00	0												
OCT	1	.93	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.92	52.00	104												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: ALFALFA  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B136

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.62	2.20	43	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	1.46	2.20	43	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.46	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	2.90	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.90	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	3.85	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.85	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	3.19	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.19	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	1.76	4.40	86	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.76	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	.98	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		27.92	39.60	774	:	:	:	:	:	:	:	:	:	:	:	:

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: GRAIN (SPRING)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 25  
 FEET OF LIFT: 252

TABLE B137

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONJUNCTIVE USE (BT)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	190	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.60	0.00	0													
	2	.60	0.00	0													
MAY	1	2.01	4.00	131	*****												
	2	2.01	6.00	157	*****												
JUNE	1	3.20	7.00	230	*****												
	2	3.20	7.00	230	*****												
JULY	1	2.00	6.00	197	*****												
	2	1.53	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS	15.15	30.00	985														

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: GRAIN  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 29  
 FEET OF LIFT: 252

TABLE B138

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.60	0.00	0												
	2	.60	0.00	0												
MAY	1	2.01	2.00	101	*****											
	2	2.01	4.40	222	*****											
JUNE	1	3.20	4.40	222	*****											
	2	3.20	4.40	222	*****											
JULY	1	2.00	4.40	222	*****											
	2	1.53	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		15.15	19.60	989												

IRRIGATION SCHEDULE AND PUMPING

TABLE B139

REGION: IDAHO  
 CROP: WASH (SPRING)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.60	0.00	0												
	2	.60	0.00	0												
MAY	1	2.01	4.00	8	*****											
	2	2.01	6.00	12	*****											
JUNE	1	3.20	7.00	14	*****											
	2	3.20	7.00	14	*****											
JULY	1	2.00	6.00	12	*****											
	2	1.53	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		15.15	30.00	60												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: GRAIN  
 TECHNIQUE: HANDIWE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B140

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.60	0.00	0												
	2	.60	0.00	0												
MAY	1	2.01	2.00	39	*****											
	2	2.01	4.40	86	*****											
JUNE	1	3.20	4.40	86	*****											
	2	3.20	4.40	86	*****											
JULY	1	2.00	4.40	86	*****											
	2	1.53	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS	15.15	19.60	383													

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: POTATOES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 29  
 FEET OF LIFT: 252

TABLE B141

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
APRIL	2	0.00	0.00	0													
MAY	1	.41	0.00	0													
MAY	2	.41	0.00	0													
JUNE	1	1.54	3.00	99	*****												
JUNE	2	1.54	3.00	99	*****												
JULY	1	4.20	8.00	263	*****												
JULY	2	4.20	8.00	263	*****												
AUG	1	4.10	8.00	263	*****												
AUG	2	4.10	3.00	263	*****												
SEPT	1	1.70	5.00	164	*****												
SEPT	2	1.70	3.00	99	*****												
OCT	1	0.00	0.00	0													
OCT	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		23.90	45.00	1513													

P DESIGNATES A PERIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: POTATOPS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 29  
 FEET OF LIFT: 252

TABLE B142

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330	360
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	.41	0.00	0												
	2	.41	0.00	0												
JUNE	1	1.54	2.20	111	*****											
	2	1.54	2.20	111	*****											
JULY	1	4.20	6.00	303	*****											
	2	4.20	7.00	353	*****											
AUG	1	4.10	6.00	303	*****											
	2	4.10	5.00	252	*****											
SEPT	1	1.70	2.00	101	*****											
	2	1.70	1.75	88	*****											
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		23.90	32.15	1622												

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: POTATOES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE LAIRS: 71  
 FEET OF LIFT: 13

TABLE B143

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	.41	0.00	0												
	2	.41	0.00	0												
JUNE	1	1.54	3.00	6												
	2	1.54	3.00	6												
JULY	1	4.20	3.00	16												
	2	4.20	3.00	16												
AUG	1	4.10	8.00	16												
	2	4.10	8.00	16												
SEPT	1	1.70	5.00	10												
	2	1.70	3.00	6												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS	23.90	46.00	92													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: POTATOES  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B144

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
PEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	.41	0.00	0												
	2	.41	0.00	0												
JUNE	1	1.54	2.20	43	*****											
	2	1.54	2.20	43	*****											
JULY	1	4.20	6.00	117	*****											
	2	4.20	7.00	137	*****											
AUG	1	4.10	6.00	117	*****											
	2	4.10	5.00	98	*****											
SEPT	1	1.70	2.00	39	*****											
	2	1.70	1.75	34	*****											
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		23.90	32.15	628												

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO

TABLE B145

CROP: SUIJAF BEETS

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 29

FEET OF LIFT: 252

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.20	0.00	0													
	2	.20	0.00	0													
MAY	1	.90	0.00	0													
	2	.90	3.00	99	*****												
JUNE	1	2.00	4.00	131	*****												
	2	2.00	4.00	131	*****												
JULY	1	3.80	7.00	230	*****												
	2	3.80	8.00	263	*****												
AUG	1	3.70	7.00	230	*****												
	2	3.70	6.00	197	*****												
SEPT	1	2.08	4.00	131	*****												
	2	2.08	3.00	99	*****												
OCT	1	.54	3.00	99	*****												
	2	.54	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.44	49.00	1610													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: TDANG  
 CROP: SUGAR BEETS  
 TECHNIQUE: HANDCWF  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 29  
 FEET OF LIFT: 252

TABLE B146

ENERGY REQUIREMENTS

TIME		WATER EQUIPMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
		CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330	360	
JAN	1	0.00	0.00	0														
JAN	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
FEB	2	0.00	0.00	0														
MARCH	1	0.00	0.00	0														
MARCH	2	0.00	0.00	0														
APRIL	1	.20	0.00	0														
APRIL	2	.20	0.00	0														
MAY	1	.90	0.00	0														
MAY	2	.90	1.50	76														
JUNE	1	2.00	2.20	111														
JUNE	2	2.00	2.20	111														
JULY	1	3.80	5.00	252														
JULY	2	3.80	6.00	303														
AUG	1	3.70	6.00	303														
AUG	2	3.70	5.00	252														
SEPT	1	2.08	2.20	111														
SEPT	2	2.08	2.20	111														
OCT	1	.54	1.50	76														
OCT	2	.54	0.00	0														
NOV	1	0.00	0.00	0														
NOV	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
DEC	2	0.00	0.00	0														
TOTALS		26.44	33.80	1706														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: SUGAR BEETS  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B147

ENERGY REQUIREMENTS

TIME	:	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.20	0.00	0													
	2	.20	0.00	0													
MAY	1	.90	0.00	0													
	2	.90	3.00	6		*****											
JUNE	1	2.00	4.00	8		*****											
	2	2.00	4.00	8		*****											
JULY	1	3.80	7.00	14		*****											
	2	3.80	8.00	16		*****											
AUG	1	3.70	7.00	14		*****											
	2	3.70	6.00	12		*****											
SEPT	1	2.08	4.00	8		*****											
	2	2.08	3.00	6		*****											
OCT	1	.54	3.00	6		*****											
	2	.54	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		26.44	49.00	98													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: IDAHO  
 CROP: SUGAR BEETS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 71  
 FEET OF LIFT: 13

TABLE B148

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	.20	0.00	0													
APRIL	2	.20	0.00	0													
MAY	1	.90	0.00	0													
MAY	2	.90	1.50	29													
JUNE	1	2.00	2.20	43													
JUNE	2	2.00	2.20	43													
JULY	1	3.80	5.00	98													
JULY	2	3.80	6.00	117													
AUG	1	3.70	6.00	117													
AUG	2	3.70	5.00	98													
SEPT	1	2.08	2.20	43													
SEPT	2	2.08	2.20	43													
OCT	1	.54	1.50	29													
OCT	2	.54	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		26.44	33.80	660													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: CORN  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 225

TABLE B149

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	3.00 P	93	*****											
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	1.21	0.00	0												
	2	1.21	0.00	0												
JUNE	1	2.92	3.00	93	*****											
	2	2.92	3.00	93	*****											
JULY	1	3.19	4.00	125	*****											
	2	3.19	4.00	125	*****											
AUG	1	2.95	3.00	93	*****											
	2	2.95	3.00	93	*****											
SEPT	1	2.33	0.00	0												
	2	2.33	0.00	0												
OCT	1	1.00	0.00	0												
	2	1.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.20	23.00	715												

P DESIGNATES A PREIRRIGATION

IRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: CGRN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 225

TABLEB150

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	3.00 P	159	*****											
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	1.21	0.00	0												
	2	1.21	0.00	0												
JUNE	1	2.92	3.00	159	*****											
	2	2.92	3.00	159	*****											
JULY	1	3.19	4.00	212	*****											
	2	3.19	4.00	212	*****											
AUG	1	2.95	3.00	159	*****											
	2	2.95	3.00	159	*****											
SEPT	1	2.33	0.00	0												
	2	2.33	0.00	0												
OCT	1	1.00	0.00	0												
	2	1.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.20	23.00	1219												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: CORN  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B151

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSERVATIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	3.00 P	13	*****											
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	1.21	0.00	0												
	2	1.21	0.00	0												
JUNE	1	2.92	3.00	13	*****											
	2	2.92	3.00	13	*****											
JULY	1	3.19	4.00	17	*****											
	2	3.19	4.00	17	*****											
AUG	1	2.95	3.00	13	*****											
	2	2.95	3.00	13	*****											
SEPT	1	2.33	0.00	0												
	2	2.33	0.00	0												
OCT	1	1.00	0.00	0												
	2	1.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.20	23.00	99												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B152

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (PI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	3.00 P	78	*****												
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	1.21	0.00	0													
	2	1.21	0.00	0													
JUNE	1	2.92	3.00	78	*****												
	2	2.92	3.00	78	*****												
JULY	1	3.19	4.00	104	*****												
	2	3.19	4.00	104	*****												
AUG	1	2.95	3.00	78	*****												
	2	2.95	3.00	78	*****												
SEPT	1	2.33	0.00	0													
	2	2.33	0.00	0													
OCT	1	1.00	0.00	0													
	2	1.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		27.20	23.00	598													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS

TABLE B153

CROP: WINTER WHEAT (FORAGE)

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 95

FEET OF LIFT: 225

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	3.00	93	*****												
APRIL	1	.24	2.00	62	*****												
	2	.24	2.00	62	*****												
MAY	1	2.37	3.00	93	*****												
	2	2.37	3.00	93	*****												
JUNE	1	2.74	0.00	0													
	2	2.74	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	1.09	2.20 P	69	*****												
	2	1.09	0.00	0													
OCT	1	.83	1.80	56	*****												
	2	.83	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		14.54	17.00	528													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 225

TABLE B154

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	.24	0.00	0												
	2	.24	3.00	159	*****											
APRIL	1	2.37	2.00	106	*****											
	2	2.37	2.00	106	*****											
MAY	1	2.74	3.00	159	*****											
	2	2.74	3.00	159	*****											
JUNE	1	0.00	0.00	0												
	2	0.00	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	1.09	2.20 P	116	*****											
	2	1.09	0.00	0												
OCT	1	.83	1.80	95	*****											
	2	.83	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		14.54	17.00	900												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B155

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	3.00	13												
APRIL	1	.24	2.00	9												
	2	.24	2.00	9												
MAY	1	2.37	3.00	13												
	2	2.37	3.00	13												
JUNE	1	2.74	0.00	0												
	2	2.74	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	1.09	2.20 P	9												
	2	1.09	0.00	0												
OCT	1	.83	1.80	8												
	2	.83	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		14.54	17.00	74												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B156

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FFD	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	.24	0.00	0													
	2	.24	3.00	78	*****												
APRIL	1	2.37	2.00	52	*****												
	2	2.37	2.00	52	*****												
MAY	1	2.74	3.00	78	*****												
	2	2.74	3.00	78	*****												
JUNE	1	0.00	0.00	0													
	2	0.00	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	1.09	2.20 P	57	*****												
	2	1.09	0.00	0													
OCT	1	.83	1.80	47	*****												
	2	.83	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		14.54	17.00	442													

P DESIGNATES A PREIRRIGATION

IRIGATION SCHEDULE AND PUMPING

REGION: KANSAS

TABLE B157

CROP: SORGHUM

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

LATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 95

FEET OF LIFT: 225

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																										
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180																																																																																																																																																																																																																																																																																																																																																																																																																														
JAN	1	0.00	0.00	0														2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708												
	2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																													
FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																														
	2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																															
MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																
	2	0.00	0.00	0													APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																	
APRIL	1	0.00	0.00	0														2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																		
	2	0.00	0.00	0													MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																			
MAY	1	0.00	0.00	0														2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																				
	2	0.00	0.00	0													JUNE	1	2.56	4.00	125	*****														2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																					
JUNE	1	2.56	4.00	125	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
	2	2.56	0.00	0													JULY	1	2.79	4.00	125	*****														2	2.79	4.00	125	*****													AUG	1	2.58	3.85	120	*****														2	2.58	3.85	120	*****													SEPT	1	2.04	3.00	93	*****														2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																								
JULY	1	2.79	4.00	125	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
	2	2.79	4.00	125	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
AUG	1	2.58	3.85	120	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
	2	2.58	3.85	120	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
SEPT	1	2.04	3.00	93	*****																																																																																																																																																																																																																																																																																																																																																																																																																																									
	2	2.04	0.00	0													OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																			
OCT	1	.70	0.00	0														2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																				
	2	.70	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																					
NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																																						
	2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																																																							
DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																																																																								
	2	0.00	0.00	0													TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																																																																																									
TOTALS		21.34	22.70	708																																																																																																																																																																																																																																																																																																																																																																																																																																										

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 225

TABLE B158

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
JAN	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MARCH	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
APRIL	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
APRIL	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
JUNE	1	2.56	1.00	53	*****												
JUNE	2	2.56	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
JULY	1	2.79	4.00	212	*****												
JULY	2	2.79	4.00	212	*****												
AUG	1	2.58	3.85	204	*****												
AUG	2	2.58	3.85	204	*****												
SEPT	1	2.04	2.90	154	*****												
SEPT	2	2.04	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	2	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS		21.34	19.60	1039	:	:	:	:	:	:	:	:	:	:	:	:	

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: SORGHUM  
 TECHNIQUE: GATED PIPE WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B159

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE														
				0	5	10	15	20	25	30	35	40	45	50	55	60		
JAN	1	0.00	0.00	0														
	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
	2	0.00	0.00	0														
MARCH	1	0.00	0.00	0														
	2	0.00	0.00	0														
APRIL	1	0.00	0.00	0														
	2	0.00	0.00	0														
MAY	1	0.00	0.00	0														
	2	0.00	0.00	0														
JUNE	1	2.56	4.00	17														
	2	2.56	0.00	0														
JULY	1	2.79	4.00	17														
	2	2.79	4.00	17														
AUG	1	2.58	3.85	16														
	2	2.58	3.85	16														
SEPT	1	2.04	3.00	13														
	2	2.04	0.00	0														
OCT	1	.70	0.00	0														
	2	.70	0.00	0														
NOV	1	0.00	0.00	0														
	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
	2	0.00	0.00	0														
TOTALS		21.34	22.70	96														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B160

ENERGY REQUIREMENTS

REGION: KANSAS  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TIME	WATER EQUIPMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	2.56	1.00	26	*****												
	2	2.56	0.00	0													
JULY	1	2.79	4.00	104	*****												
	2	2.79	4.00	104	*****												
AUG	1	2.58	3.85	100	*****												
	2	2.58	3.85	100	*****												
SEPT	1	2.04	2.90	76	*****												
	2	2.04	0.00	0													
OCT	1	.70	0.00	0													
	2	.70	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		21.34	19.60	510													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS

TABLE B161

CROP: ALFALFA

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 95

FEET OF LIPT: 225

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.27	0.00	0												
	2	.27	4.00	125	*****											
MAY	1	2.69	0.00	0												
	2	2.69	4.00	125	*****											
JUNE	1	3.11	0.00	0												
	2	3.11	7.00	218	*****											
JULY	1	3.39	0.00	0												
	2	3.39	8.00	249	*****											
AUG	1	3.13	0.00	0												
	2	3.13	7.00	218	*****											
SEPT	1	2.48	0.00	0												
	2	2.48	5.00	156	*****											
OCT	1	.85	0.00	0												
	2	.85	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.84	35.00	1091												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS

TABLE B162 :

CROP: ALFALFA

TECHNIQUE: CENTER PIVOT

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 95

FEET OF LIFT: 225

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILGWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
PEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.27	2.20 P	116	*****											
	2	.27	0.00	0												
MAY	1	2.69	2.00	106	*****											
	2	2.69	2.00	106	*****											
JUNE	1	3.11	4.00	212	*****											
	2	3.11	4.00	212	*****											
JULY	1	3.39	4.50	238	*****											
	2	3.39	4.50	238	*****											
AUG	1	3.13	4.00	212	*****											
	2	3.13	4.00	212	*****											
SEPT	1	2.48	2.50	132	*****											
	2	2.48	2.50	132	*****											
OCT	1	.85	0.00	0												
	2	.85	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.84	36.20	1916												

240

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS

TABLE B16.

CROP: ALFALFA

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 5

FEET OF LIFT: 17

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.27	0.00	0												
	2	.27	4.00	17	*****											
MAY	1	2.69	0.00	0												
	2	2.69	4.00	17	*****											
JUNE	1	3.11	0.00	0												
	2	3.11	7.00	30	*****											
JULY	1	3.39	0.00	0												
	2	3.39	8.00	34	*****											
AUG	1	3.13	0.00	0												
	2	3.13	7.00	30	*****											
SEPT	1	2.48	0.00	0												
	2	2.48	5.00	21	*****											
OCT	1	.85	0.00	0												
	2	.85	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.84	35.00	149												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: KANSAS  
 CROP: ALFALFA  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 17

TABLE B164

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.27	2.20 P	57	*****											
	2	.27	0.00	0												
MAY	1	2.69	2.00	52	*****											
	2	2.69	2.00	52	*****											
JUNE	1	3.11	4.00	104	*****											
	2	3.11	4.00	104	*****											
JULY	1	3.39	4.50	117	*****											
	2	3.39	4.50	117	*****											
AUG	1	3.13	4.00	104	*****											
	2	3.13	4.00	104	*****											
SEPT	1	2.48	2.50	65	*****											
	2	2.48	2.50	65	*****											
OCT	1	.85	0.00	0												
	2	.85	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.84	36.20	941												

IRRIGATION SCHEDULE AND PUMPING

REGION: NEBRASKA

TABLE B165

CROP: CORN

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 85

FEET OF LIFT: 103

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	.81	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.81	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	2.08	3.00	46	*****											
	2	2.08	3.00	46	*****											
JULY	1	3.27	3.00	46	*****											
	2	3.27	3.00	46	*****											
AUG	1	3.19	4.00	62	*****											
	2	3.19	4.00	62	*****											
SEPT	1	2.10	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.10	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		22.90	20.00	308	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEBRASKA  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 85  
 FEET OF LIFT: 103

TABLE B166

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
APRIL	2	0.00	0.00	0													
MAY	1	.81	0.00	0													
MAY	2	.81	0.00	0													
JUNE	1	2.08	0.00	0													
JUNE	2	2.08	2.00	74	*****												
JULY	1	3.27	3.00	112	*****												
JULY	2	3.27	3.00	112	*****												
AUG	1	3.19	4.00	149	*****												
AUG	2	3.19	3.00	112	*****												
SEPT	1	2.10	2.00	74	*****												
SEPT	2	2.10	0.00	0													
OCT	1	0.00	0.00	0													
OCT	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		22.90	17.00	633													

P DESIGNATES A PREIRRIGATION

44

IRRIGATION SCHEDULE AND PUMPING

REGION: NEBRASKA

TABLE B167

CROP: CORN

TECHNIQUE: GATED PIPE WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 15

FEET OF LIFT: 20

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	.81	0.00	0												
	2	.81	0.00	0												
JUNE	1	2.08	3.00	14	*****											
	2	2.08	3.00	14	*****											
JULY	1	3.27	3.00	14	*****											
	2	3.27	3.00	14	*****											
AUG	1	3.19	4.00	19	*****											
	2	3.19	4.00	19	*****											
SEPT	1	2.10	0.00	0												
	2	2.10	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.90	20.00	94												

P DESIGNATES A PFEIRPIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEBRASKA  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 15  
 FEET OF LIFT: 20

TABLE B168

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	.81	0.00	0													
	2	.81	0.00	0													
JUNE	1	2.08	0.00	0													
	2	2.08	2.00	53	*****												
JULY	1	3.27	3.00	79	*****												
	2	3.27	3.00	79	*****												
AUG	1	3.19	4.00	106	*****												
	2	3.19	3.00	79	*****												
SEPT	1	2.10	2.00	53	*****												
	2	2.10	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		22.90	17.00	449													

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO

TABLE B169

CROP: SORGHUM

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

\*WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 70

FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	6.00 P	196	*****											
JUNE	1	1.89	0.00	0												
	2	1.89	0.00	0												
JULY	1	3.93	3.50	114	*****											
	2	3.93	3.50	114	*****											
AUG	1	3.14	3.50	114	*****											
	2	3.14	0.00	0												
SEPT	1	2.12	0.00	0												
	2	2.12	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.16	16.50	538												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

TABLE B170

REGION: NEW MEXICO  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 70  
 FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	4.00 P	225	*****											
JUNE	1	1.89	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.89	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	3.93	2.00	112	*****											
	2	3.93	2.00	112	*****											
AUG	1	3.14	2.00	112	*****											
	2	3.14	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	2.12	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.12	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		22.16	10.00	561	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B171

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (PT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	6.00 P	2	**											
JUNE	1	1.89	0.00	0												
	2	1.89	0.00	0												
JULY	1	3.93	3.50	1	*											
	2	3.93	3.50	1	*											
AUG	1	3.14	3.50	1	*											
	2	3.14	0.00	0												
SEPT	1	2.12	0.00	0												
	2	2.12	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.16	16.50	5												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B172

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	4.00 P	95	*****											
JUNE	1	1.89	0.00	0												
	2	1.89	0.00	0												
JULY	1	3.93	2.00	48	*****											
	2	3.93	2.00	48	*****											
AUG	1	3.14	2.00	48	*****											
	2	3.14	0.00	0												
SEPT	1	2.12	0.00	0												
	2	2.12	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.16	10.00	239												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFALFA SOUTH  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 70  
 FEET OF LIFT: 250

TABLE B173

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	6.00 P	196	*****												
APRIL	1	1.37	3.50	114	*****												
	2	1.37	3.50	114	*****												
MAY	1	2.68	3.50	114	*****												
	2	2.68	3.50	114	*****												
JUNE	1	3.40	3.50	114	*****												
	2	3.40	3.50	114	*****												
JULY	1	3.93	3.50	114	*****												
	2	3.93	3.50	114	*****												
AUG	1	3.69	3.50	114	*****												
	2	3.69	3.50	114	*****												
SEPT	1	2.42	3.50	114	*****												
	2	2.42	0.00	0													
OCT	1	1.72	0.00	0													
	2	1.72	0.00	0													
NOV	1	.05	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		38.47	44.50	1450													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFALFA SOUTH  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

TABLE B174

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	4.00 P	225	*****											
APRIL	1	1.37	2.00	112	*****											
	2	1.37	2.00	112	*****											
MAY	1	2.68	2.00	112	*****											
	2	2.68	2.00	112	*****											
JUNE	1	3.40	2.00	112	*****											
	2	3.40	2.00	112	*****											
JULY	1	3.93	2.00	112	*****											
	2	3.93	2.00	112	*****											
AUG	1	3.69	2.00	112	*****											
	2	3.69	2.00	112	*****											
SEPT	1	2.42	2.00	112	*****											
	2	2.42	0.00	0												
OCT	1	1.72	0.00	0												
	2	1.72	0.00	0												
NOV	1	.50	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		38.92	26.00	1457												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFAIFA SOUTH  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B17

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	6.00 P	2	**											
APRIL	1	1.37	3.50	1	*											
	2	1.37	3.50	1	*											
MAY	1	2.68	3.50	1	*											
	2	2.68	3.50	1	*											
JUNE	1	3.40	3.50	1	*											
	2	3.40	3.50	1	*											
JULY	1	3.93	3.50	1	*											
	2	3.93	3.50	1	*											
AUG	1	3.69	3.50	1	*											
	2	3.69	3.50	1	*											
SEPT	1	2.42	3.50	1	*											
	2	2.42	0.00	0												
OCT	1	1.72	0.00	0												
	2	1.72	0.00	0												
NOV	1	.05	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		38.47	44.50	13												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B176

ENERGY REQUIREMENTS

REGION: NEW MEXICO  
 CROP: ALFALFA SOUTH  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TIME	WATER REQUIREMENT INCHES		PUMPING ENRGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	4.00 P	95	*****											
APRIL	1	1.37	2.00	48	*****											
	2	1.37	2.00	48	*****											
MAY	1	2.68	2.00	48	*****											
	2	2.68	2.00	48	*****											
JUNE	1	3.40	2.00	48	*****											
	2	3.40	2.00	48	*****											
JULY	1	3.93	2.00	48	*****											
	2	3.93	2.00	48	*****											
AUG	1	3.69	2.00	48	*****											
	2	3.69	2.00	48	*****											
SEPT	1	2.42	2.00	48	*****											
	2	2.42	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.72	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.72	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.50	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		38.92	26.00	623	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

254

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFALFA NORTH  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 70  
 FEET OF LIFT: 250

TABLE B177

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.87	0.00	0												
	2	.87	6.00 P	196	*****											
MAY	1	2.55	3.50	114	*****											
	2	2.55	3.50	114	*****											
JUNE	1	3.30	3.50	114	*****											
	2	3.30	3.50	114	*****											
JULY	1	3.88	3.50	114	*****											
	2	3.88	3.50	114	*****											
AUG	1	3.61	3.50	114	*****											
	2	3.61	3.50	114	*****											
SEPT	1	2.35	0.00	0												
	2	2.35	0.00	0												
OCT	1	1.37	0.00	0												
	2	1.37	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		35.86	34.00	1108												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

TABLE B178

REGION: NEW MEXICO  
 CROP: ALFALFA NORTH  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.87	0.00	0												
	2	.87	4.00 P	225	*****											
MAY	1	2.55	2.00	112	*****											
	2	2.55	2.00	112	*****											
JUNE	1	3.30	2.00	112	*****											
	2	3.30	2.00	112	*****											
JULY	1	3.88	2.00	112	*****											
	2	3.88	2.00	112	*****											
AUG	1	3.61	2.00	112	*****											
	2	3.61	2.00	112	*****											
SEPT	1	2.35	0.00	0												
	2	2.35	0.00	0												
OCT	1	1.37	0.00	0												
	2	1.37	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		35.86	20.00	1121												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFALFA NORTH  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B179

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.87	0.00	0												
	2	.87	6.00 P	2	**											
MAY	1	2.55	3.50	1	*											
	2	2.55	3.50	1	*											
JUNE	1	3.30	3.50	1	*											
	2	3.30	3.50	1	*											
JULY	1	3.88	3.50	1	*											
	2	3.88	3.50	1	*											
AUG	1	3.61	3.50	1	*											
	2	3.61	3.50	1	*											
SEPT	1	2.35	0.00	0												
	2	2.35	0.00	0												
OCT	1	1.37	0.00	0												
	2	1.37	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		35.86	34.00	10												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: ALFALFA NORTH  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B180

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	.87	0.00	0												
APRIL	2	.87	4.00 P	95	*****											
MAY	1	2.55	2.00	48	*****											
MAY	2	2.55	2.00	48	*****											
JUNE	1	3.30	2.00	48	*****											
JUNE	2	3.30	2.00	48	*****											
JULY	1	3.88	2.00	48	*****											
JULY	2	3.88	2.00	48	*****											
AUG	1	3.61	2.00	48	*****											
AUG	2	3.61	2.00	48	*****											
SEPT	1	2.35	0.00	0												
SEPT	2	2.35	0.00	0												
OCT	1	1.37	0.00	0												
OCT	2	1.37	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		35.86	20.00	479												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO

TABLE B18

CROP: COTTON

TECHNIQUE: OPEN DITCH WITHOUT PUMP LACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 70

FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	6.00 P	196	*****												
APRIL	1	.63	0.00	0													
	2	.63	0.00	0													
MAY	1	1.34	0.00	0													
	2	1.34	0.00	0													
JUNE	1	2.26	3.50	114	*****												
	2	2.26	3.50	114	*****												
JULY	1	3.53	3.50	114	*****												
	2	3.53	3.50	114	*****												
AUG	1	3.69	3.50	114	*****												
	2	3.69	3.50	114	*****												
SEPT	1	2.88	0.00	0													
	2	2.88	0.00	0													
OCT	1	1.29	0.00	0													
	2	1.29	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.24	27.00	880													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: COTTON  
 TECHNIQUE: SIDE ROLL  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

TABLE B182

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	4.00 P	201	*****												
APRIL	1	.63	0.00	0													
	2	.63	0.00	0													
MAY	1	1.34	0.00	0													
	2	1.34	0.00	0													
JUNE	1	2.26	2.00	100	*****												
	2	2.26	2.00	100	*****												
JULY	1	3.53	2.00	100	*****												
	2	3.53	2.00	100	*****												
AUG	1	3.69	2.00	100	*****												
	2	3.69	2.00	100	*****												
SEPT	1	2.88	0.00	0													
	2	2.88	0.00	0													
OCT	1	1.29	0.00	0													
	2	1.29	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.24	16.00	801													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: COTTON  
 TECHNIQUE: BIG GUN  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

TABLE B183

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																				
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300																																																																																																																																																																																																																																																																																																																																																																																																																								
JAN	1	0.00	0.00	0														2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	4.00 P	260	*****												APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040												
	2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	4.00 P	260	*****												APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																													
FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	4.00 P	260	*****												APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																														
	2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	4.00 P	260	*****												APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																															
MARCH	1	0.00	0.00	0														2	0.00	4.00 P	260	*****												APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																
	2	0.00	4.00 P	260	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
APRIL	1	.63	0.00	0														2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																		
	2	.63	0.00	0													MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																			
MAY	1	1.34	0.00	0														2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																				
	2	1.34	0.00	0													JUNE	1	2.26	2.00	130	*****													2	2.26	2.00	130	*****												JULY	1	3.53	2.00	130	*****													2	3.53	2.00	130	*****												AUG	1	3.69	2.00	130	*****													2	3.69	2.00	130	*****												SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																					
JUNE	1	2.26	2.00	130	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
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JULY	1	3.53	2.00	130	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
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AUG	1	3.69	2.00	130	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
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SEPT	1	2.88	0.00	0														2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																												
	2	2.88	0.00	0													OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																													
OCT	1	1.29	0.00	0														2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																														
	2	1.29	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																															
NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																																																
	2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																																																																	
DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																																																																																		
	2	0.00	0.00	0													TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																																																																																																			
TOTALS		31.24	16.00	1040																																																																																																																																																																																																																																																																																																																																																																																																																																				

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO

TABLE B184

CROP: COTTON

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 30

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	6.00 P	2	**											
APRIL	1	.63	0.00	0												
	2	.63	0.00	0												
MAY	1	1.34	0.00	0												
	2	1.34	0.00	0												
JUNE	1	2.26	3.50	1	*											
	2	2.26	3.50	1	*											
JULY	1	3.53	3.50	1	*											
	2	3.53	3.50	1	*											
AUG	1	3.69	3.50	1	*											
	2	3.69	3.50	1	*											
SEPT	1	2.88	0.00	0												
	2	2.88	0.00	0												
OCT	1	1.29	0.00	0												
	2	1.29	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.24	27.00	8												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: COTTON  
 TECHNIQUE: SIDE ROLL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 50  
 FEET OF LIFT: 0

TABLE B185

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	4.00 P	72	*****											
APRIL	1	.63	0.00	0												
	2	.63	0.00	0												
MAY	1	1.34	0.00	0												
	2	1.34	0.00	0												
JUNE	1	2.26	2.00	36	*****											
	2	2.26	2.00	36	*****											
JULY	1	3.53	2.00	36	*****											
	2	3.53	2.00	36	*****											
AUG	1	3.69	2.00	36	*****											
	2	3.69	2.00	36	*****											
SEPT	1	2.88	0.00	0												
	2	2.88	0.00	0												
OCT	1	1.29	0.00	0												
	2	1.29	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		31.24	16.00	288												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: COTTON  
 TECHNIQUE: BIG GUN  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B186

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	4.00 P	131	*****												
APRIL	1	.63	0.00	0													
	2	.63	0.00	0													
MAY	1	1.34	0.00	0													
	2	1.34	0.00	0													
JUNE	1	2.26	2.00	66	*****												
	2	2.26	2.00	66	*****												
JULY	1	3.53	2.00	66	*****												
	2	3.53	2.00	66	*****												
AUG	1	3.69	2.00	66	*****												
	2	3.69	2.00	66	*****												
SEPT	1	2.88	0.00	0													
	2	2.88	0.00	0													
OCT	1	1.29	0.00	0													
	2	1.29	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.24	16.00	527													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 70  
 FEET OF LIFT: 250

TABLE B187

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	3.50	114	*****												
	2	.70	0.00	0													
MARCH	1	1.25	0.00	0													
	2	1.25	0.00	0													
APRIL	1	2.80	3.50	114	*****												
	2	2.80	0.00	0													
MAY	1	4.15	3.50	114	*****												
	2	4.15	0.00	0													
JUNE	1	2.75	3.50	114	*****												
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	5.00 P	163	*****												
	2	0.00	0.00	0													
NOV	1	.60	3.50	114	*****												
	2	.60	0.00	0													
DEC	1	.65	0.00	0													
	2	.65	0.00	0													
TOTALS		26.90	22.50	733													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

TABLE B188

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	2.00	112	*****											
	2	.70	0.00	0												
MARCH	1	1.25	0.00	0												
	2	1.25	0.00	0												
APRIL	1	2.80	2.00	112	*****											
	2	2.80	0.00	0												
MAY	1	4.15	2.00	112	*****											
	2	4.15	0.00	0												
JUNE	1	2.75	2.00	112	*****											
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	4.00 P	225	*****											
	2	0.00	0.00	0												
NOV	1	.60	2.00	112	*****											
	2	.60	0.00	0												
DEC	1	.65	0.00	0												
	2	.65	0.00	0												
TOTALS		26.90	14.00	785												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: BIG GUN  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER : 70  
 FEET OF LIFT: 250

TABLE B185

ENERGY REQUIREMENTS

TIME	WATER EQUIPMENT INCHES	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
					0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	2.00	130	*****												
	2	.70	0.00	0													
MARCH	1	1.25	0.00	0													
	2	1.25	0.00	0													
APRIL	1	2.80	2.00	130	*****												
	2	2.80	0.00	0													
MAY	1	4.15	2.00	130	*****												
	2	4.15	0.00	0													
JUNE	1	2.75	2.00	130	*****												
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	4.00 P	260	*****												
	2	0.00	0.00	0													
NOV	1	.60	2.00	130	*****												
	2	.60	0.00	0													
DEC	1	.65	0.00	0													
	2	.65	0.00	0													
TOTALS		26.90	14.00	910													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FOFAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEEL OF LIFT: 0

TABLE B190

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.55	0.00	0													
JAN	2	.55	0.00	0													
FEB	1	.70	3.50	1	*												
FEB	2	.70	0.00	0													
MARCH	1	1.25	0.00	0													
MARCH	2	1.25	0.00	0													
APRIL	1	2.80	3.50	1	*												
APRIL	2	2.80	0.00	0													
MAY	1	4.15	3.50	1	*												
MAY	2	4.15	0.00	0													
JUNE	1	2.75	3.50	1	*												
JUNE	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
JULY	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
AUG	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
SEPT	2	0.00	0.00	0													
OCT	1	0.00	5.00 P	1	*												
OCT	2	0.00	0.00	0													
NOV	1	.60	3.50	1	*												
NOV	2	.60	0.00	0													
DEC	1	.65	0.00	0													
DEC	2	.65	0.00	0													
TOTALS		26.90	22.50	6													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TABLE B191

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.55	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	.70	2.00	48	*****												
	2	.70	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	1.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.25	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	2.80	2.00	48	*****												
	2	2.80	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	4.15	2.00	48	*****												
	2	4.15	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	2.75	2.00	48	*****												
	2	2.75	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	0.00	4.00 P	95	*****												
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	.60	2.00	48	*****												
	2	.60	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	.65	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
	2	.65	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		26.90	14.00	335	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B192

ENERGY REQUIREMENTS

REGION: NEW MEXICO  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: BIG GUN  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 30  
 FEET OF LIFT: 0

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	2.00	66	*****												
	2	.70	0.00	0													
MARCH	1	1.25	0.00	0													
	2	1.25	0.00	0													
APRIL	1	2.80	2.00	66	*****												
	2	2.80	0.00	0													
MAY	1	4.15	2.00	66	*****												
	2	4.15	0.00	0													
JUNE	1	2.75	2.00	66	*****												
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	4.00 P	131	*****												
	2	0.00	0.00	0													
NOV	1	.60	2.00	66	*****												
	2	.60	0.00	0													
DEC	1	.65	0.00	0													
	2	.65	0.00	0													
TOTALS		26.90	14.00	461													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: OPEN LITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B193

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0														
	2	0.00	0														
FEB	1	0.00	0														
	2	0.00	0														
MARCH	1	6.00	215	*****													
	2	0.00	0														
APRIL	1	0.00	0														
	2	6.00	215	*****													
MAY	1	0.00	0														
	2	0.00	0														
JUNE	1	0.00	0														
	2	0.00	0														
JULY	1	0.00	0														
	2	0.00	0														
AUG	1	0.00	0														
	2	7.00 P	251	*****													
SEPT	1	0.00	0														
	2	0.00	0														
OCT	1	0.00	0														
	2	6.00	215	*****													
NOV	1	0.00	0														
	2	0.00	0														
DEC	1	0.00	0														
	2	0.00	0														
TOTALS		26.90	896														

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B194

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	0.00	0												
	2	.70	0.00	0												
MARCH	1	1.25	4.00	238	*****											
	2	1.25	0.00	0												
APRIL	1	2.80	0.00	0												
	2	2.80	4.00	238	*****											
MAY	1	4.15	0.00	0												
	2	4.15	0.00	0												
JUNE	1	2.75	0.00	0												
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	4.00 P	238	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	4.00	238	*****											
NOV	1	.60	0.00	0												
	2	.60	0.00	0												
DEC	1	.65	0.00	0												
	2	.65	0.00	0												
TOTALS		26.90	16.00	952												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B19

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	0.00	0													
	2	.70	0.00	0													
MARCH	1	1.25	6.00	25	*****												
	2	1.25	0.00	0													
APRIL	1	2.80	0.00	0													
	2	2.80	6.00	25	*****												
MAY	1	4.15	0.00	0													
	2	4.15	0.00	0													
JUNE	1	2.75	0.00	0													
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	7.00 P	29	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	6.00	25	*****												
NOV	1	.60	0.00	0													
	2	.60	0.00	0													
DEC	1	.65	0.00	0													
	2	.65	0.00	0													
TOTALS		26.90	25.00	104													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B196

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	0.00	0													
	2	.70	0.00	0													
MARCH	1	1.25	4.00	111	*****												
	2	1.25	0.00	0													
APRIL	1	2.80	0.00	0													
	2	2.80	4.00	111	*****												
MAY	1	4.15	0.00	0													
	2	4.15	0.00	0													
JUNE	1	2.75	0.00	0													
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	4.00 P	111	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	4.00	111	*****												
NOV	1	.60	0.00	0													
	2	.60	0.00	0													
DEC	1	.65	0.00	0													
	2	.65	0.00	0													
TOTALS		26.90	16.00	444													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B197

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
APRIL	1	0.00	7.00 P	251	*****												
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
MAY	1	2.34	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.34	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
JUNE	1	2.72	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.72	7.00	251	*****												
JULY	1	2.48	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.48	7.00	251	*****												
AUG	1	2.73	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	2.73	7.00	251	*****												
SEPT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	
TOTALS	20.54	28.00	1004														

P DESIGNATES A PREIRRIGATION

275

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: SOYBEAN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B198

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	0.00	5.00 P	297	*****												
APRIL	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	2.34	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	2.34	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	2.72	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	2.72	1.80	107	*****												
JULY	2.48	1.80	107	*****												
JULY	2.48	1.80	107	*****												
AUG	2.73	1.80	107	*****												
AUG	2.73	1.80	107	*****												
SEPT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	20.54	14.00	832	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: CALIFORNIA  
 CROP: SOYBEAN  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B19

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES CONSUMPTIVE USE (CU)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACFE	KILLOWATT-HOURS/ACFE													
				0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
FEB	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
MARCH	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
APRIL	1 : 0.00	7.00 P	29	*****													
	2 : 0.00	0.00	0														
MAY	1 : 2.34	0.00	0														
	2 : 2.34	0.00	0														
JUNE	1 : 2.72	0.00	0														
	2 : 2.72	7.00	29	*****													
JULY	1 : 2.48	0.00	0														
	2 : 2.48	7.00	29	*****													
AUG	1 : 2.73	0.00	0														
	2 : 2.73	7.00	29	*****													
SEPT	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
OCT	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
NOV	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
DEC	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
TOTALS	20.54	28.00	116														

P DESIGNATES A PERIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: SOYBEAN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B200

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT (INCHES)		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (CU)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	5.00 P	139	*****											
	2	0.00	0.00	0												
MAY	1	2.34	0.00	0												
	2	2.34	0.00	0												
JUNE	1	2.72	0.00	0												
	2	2.72	1.80	50	*****											
JULY	1	2.48	1.80	50	*****											
	2	2.48	1.80	50	*****											
AUG	1	2.73	1.80	50	*****											
	2	2.73	1.80	50	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		20.54	14.00	389												

P DESIGNATES A PERIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA

TABLE B201

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 79

FEET OF LIFT: 275

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																				
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300																																																																																																																																																																																																																																																																																																																																																																																																																								
JAN	1	0.00	0.00	0														2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004												
	2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																													
FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																														
	2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																															
MARCH	1	0.00	0.00	0														2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																
	2	0.00	0.00	0													APRIL	1	0.00	7.00 P	251	*****													2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																	
APRIL	1	0.00	7.00 P	251	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
	2	2.10	0.00	0													MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																			
MAY	1	2.63	0.00	0														2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																				
	2	2.63	0.00	0													JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																					
JUNE	1	3.01	0.00	0														2	3.01	7.00	251	*****												JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																						
	2	3.01	7.00	251	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
JULY	1	3.26	0.00	0														2	3.26	7.00	251	*****												AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																								
	2	3.26	7.00	251	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
AUG	1	1.52	0.00	0														2	1.52	7.00	251	*****												SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																										
	2	1.52	7.00	251	*****																																																																																																																																																																																																																																																																																																																																																																																																																																			
SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																												
	2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																													
OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																														
	2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																															
NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																																																
	2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																																																																	
DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																																																																																		
	2	0.00	0.00	0													TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																																																																																																			
TOTALS		22.94	28.00	1004																																																																																																																																																																																																																																																																																																																																																																																																																																				

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B202

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	5.00 P	297	*****												
	2	2.10	0.00	0													
MAY	1	2.63	0.00	0													
	2	2.63	0.00	0													
JUNE	1	3.01	0.00	0													
	2	3.01	1.30	107	*****												
JULY	1	3.26	1.80	107	*****												
	2	3.26	1.80	107	*****												
AUG	1	1.52	1.80	107	*****												
	2	1.52	1.80	107	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		22.94	14.00	832													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA

TABLE B20

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 21

FEET OF LIFT: 30

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	7.00 P	29	*****												
	2	2.10	0.00	0													
MAY	1	2.63	0.00	0													
	2	2.63	0.00	0													
JUNE	1	3.01	0.00	0													
	2	3.01	7.00	29	*****												
JULY	1	3.26	0.00	0													
	2	3.26	7.00	29	*****												
AUG	1	1.52	0.00	0													
	2	1.52	7.00	29	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		22.94	28.00	116													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B204

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE															
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180			
JAN	1	0.00	0.00	0															
	2	0.00	0.00	0															
FEB	1	0.00	0.00	0															
	2	0.00	0.00	0															
MARCH	1	0.00	0.00	0															
	2	0.00	0.00	0															
APRIL	1	0.00	5.00 P	139	*****														
	2	2.10	0.00	0															
MAY	1	2.63	0.00	0															
	2	2.63	0.00	0															
JUNE	1	3.01	0.00	0															
	2	3.01	1.80	50	*****														
JULY	1	3.26	1.80	50	*****														
	2	3.26	1.80	50	*****														
AUG	1	1.52	1.80	50	*****														
	2	1.52	1.80	50	*****														
SEPT	1	0.00	0.00	0															
	2	0.00	0.00	0															
OCT	1	0.00	0.00	0															
	2	0.00	0.00	0															
NOV	1	0.00	0.00	0															
	2	0.00	0.00	0															
DEC	1	0.00	0.00	0															
	2	0.00	0.00	0															
TOTALS		22.94	14.00	389															

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: ALFALFA  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B205

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	25	50	75	100	125	150	175	200	225	250	275	300
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	7.00 P	251	*****											
	2	0.00	0.00	0												
APRIL	1	1.86	0.00	0												
	2	1.86	4.00	143	*****											
MAY	1	2.79	0.00	0												
	2	2.79	4.00	143	*****											
JUNE	1	3.20	0.00	0												
	2	3.20	4.00	143	*****											
JULY	1	3.46	0.00	0												
	2	3.46	4.00	143	*****											
AUG	1	3.24	0.00	0												
	2	3.24	4.00	143	*****											
SEPT	1	2.61	0.00	0												
	2	2.61	4.00	143	*****											
OCT	1	2.06	0.00	0												
	2	2.06	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		38.44	31.00	1109												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: ALFALFA  
 TECHNIQUE: SIDE FOLL  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 HEAD OF LIFT: 275

TABLE B206

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	2.00 P	107												
MARCH	1	0.00	2.00 P	107												
	2	0.00	0.00	0												
APRIL	1	1.86	0.00	0												
	2	1.86	1.80	96												
MAY	1	2.79	1.80	96												
	2	2.79	1.80	96												
JUNE	1	3.20	1.80	96												
	2	3.20	1.80	96												
JULY	1	3.46	1.80	96												
	2	3.46	1.80	96												
AUG	1	3.24	1.80	96												
	2	3.24	1.80	96												
SEPT	1	2.61	1.80	96												
	2	2.61	1.80	96												
OCT	1	2.06	1.80	96												
	2	2.06	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		38.44	25.60	1366												

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA

TABLE B20

CROP: ALFALFA

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 21

FEET OF LIFT: 30

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	7.00 P	29	*****												
	2	0.00	0.00	0													
APRIL	1	1.86	0.00	0													
	2	1.86	4.00	17	*****												
MAY	1	2.79	0.00	0													
	2	2.79	4.00	17	*****												
JUNE	1	3.20	0.00	0													
	2	3.20	4.00	17	*****												
JULY	1	3.46	0.00	0													
	2	3.46	4.00	17	*****												
AUG	1	3.24	0.00	0													
	2	3.24	4.00	17	*****												
SEPT	1	2.61	0.00	0													
	2	2.61	4.00	17	*****												
OCT	1	2.06	0.00	0													
	2	2.06	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		38.44	31.00	131													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND CHARGES

REGION: OKLAHOMA  
 CROP: ALFALFA  
 TECHNIQUE: SIDE ROLL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 11  
 FEET OF LIFT: 30

TABLE B208

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (RT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	2.00 P	44	*****												
MARCH	1	0.00	2.00 P	44	*****												
	2	0.00	0.00	0													
APRIL	1	1.86	0.00	0													
	2	1.86	1.80	39	*****												
MAY	1	2.79	1.80	39	*****												
	2	2.79	1.80	39	*****												
JUNE	1	3.20	1.80	39	*****												
	2	3.20	1.80	39	*****												
JULY	1	3.46	1.80	39	*****												
	2	3.46	1.80	39	*****												
AUG	1	3.24	1.80	39	*****												
	2	3.24	1.80	39	*****												
SEPT	1	2.61	1.80	39	*****												
	2	2.61	1.80	39	*****												
OCT	1	2.06	1.80	39	*****												
	2	2.06	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		39.44	25.60	556													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: PEANUTS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 79  
 FEET OF LIFT: 275

TABLE B209

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
APRIL	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
MAY	2	0.00	0.00	0													
JUNE	1	2.00	0.00	0													
JUNE	2	2.00	0.00	0													
JULY	1	2.00	0.00	0													
JULY	2	4.20	3.50	187	*****												
AUG	1	4.20	3.50	187	*****												
AUG	2	4.20	3.50	187	*****												
SEPT	1	2.00	3.50	187	*****												
SEPT	2	2.00	0.00	0													
OCT	1	0.00	0.00	0													
OCT	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		22.60	14.00	746													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: OKLAHOMA  
 CROP: PEANUTS  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 21  
 FEET OF LIFT: 30

TABLE B210

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCREAS :		PUMPING ENERGY REQUIREMENT KWH/ACFE	KILOWATT-HOURS/ACFE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
MAY	2	0.00	0.00	0												
JUNE	1	2.00	0.00	0												
JUNE	2	2.00	0.00	0												
JULY	1	2.00	0.00	0												
JULY	2	4.20	3.50	76	*****											
AUG	1	4.20	3.50	76	*****											
AUG	2	4.20	3.50	76	*****											
SEPT	1	2.00	3.50	76	*****											
SEPT	2	2.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		22.60	14.00	304												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: HAY  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B21

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	.82	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.82	4.00	45	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	2.19	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.19	4.00	45	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	2.97	4.00	45	:	:	:	:	:	:	:	:	:	:	:	:
	2	2.97	4.00	45	:	:	:	:	:	:	:	:	:	:	:	:
JULY	1	3.86	5.00	56	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.86	6.00	67	:	:	:	:	:	:	:	:	:	:	:	:
AUG	1	3.54	6.00	67	:	:	:	:	:	:	:	:	:	:	:	:
	2	3.54	5.00	56	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1	1.98	4.00	45	:	:	:	:	:	:	:	:	:	:	:	:
	2	1.98	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1	1.05	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS		31.77	42.00	471	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: HAY  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B212

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.82	0.00	0													
	2	.82	2.00	58	*****												
MAY	1	2.19	0.00	0													
	2	2.19	2.00	58	*****												
JUNE	1	2.97	3.00	86	*****												
	2	2.97	4.00	115	*****												
JULY	1	3.86	5.00	144	*****												
	2	3.86	4.00	115	*****												
AUG	1	3.54	3.00	86	*****												
	2	3.54	3.00	86	*****												
SEPT	1	1.98	2.00	58	*****												
	2	1.98	0.00	0													
OCT	1	1.05	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.77	28.00	806													

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON

TABLE B213

CROP: HAY

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 87

FEET OF LIFT: 17

ENERGY REQUIREMENTS

TIME	:	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.82	0.00	0													
	2	.82	4.00	10													
MAY	1	2.19	0.00	0													
	2	2.19	4.00	10													
JUNE	1	2.97	4.00	10													
	2	2.97	4.00	10													
JULY	1	3.86	5.00	12													
	2	3.86	6.00	15													
AUG	1	3.54	6.00	15													
	2	3.54	5.00	12													
SEPT	1	1.98	4.00	10													
	2	1.98	0.00	0													
OCT	1	1.05	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		31.77	42.00	104													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: GREGG  
 CROP: HAY  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 17

TABLE B214

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACFE	KILOWATT-HOURS/ACRE														
				0	10	20	30	40	50	60	70	80	90	100	110	120		
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
JAN	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FEB	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	.82	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	.82	2.00	40	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	2.19	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MAY	2.19	2.00	40	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	2.97	3.00	60	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	2.97	4.00	80	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	3.86	5.00	100	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
JULY	3.86	4.00	80	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	3.54	3.00	60	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
AUG	3.54	3.00	60	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1.98	2.00	40	:	*****	:	:	:	:	:	:	:	:	:	:	:	:	:
SEPT	1.98	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	1.05	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
OCT	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NOV	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
DEC	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	31.77	28.00	560	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON

TABLE B21

CROP: VEGETABLES (CORN)

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 13

FEE OF LIFT: 34

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	0.00	0													
MARCH	0.00	0.00	0													
APRIL	0.00	0.00	0													
APRIL	0.00	0.00	0													
MAY	.65	0.00	0													
MAY	.65	4.00	45	*****												
JUNE	2.30	5.00	56	*****												
JUNE	2.30	5.00	56	*****												
JULY	4.21	4.00	45	*****												
JULY	4.21	4.00	45	*****												
AUG	2.20	0.00	0													
AUG	2.20	0.00	0													
SEPT	0.00	0.00	0													
SEPT	0.00	0.00	0													
OCT	0.00	0.00	0													
OCT	0.00	0.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	18.72	22.00	247													

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: VEGETABLES (CORN)  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B216

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	0.00	0												
MAY	1	.65	0.00	0												
MAY	2	.65	2.00	58												
JUNE	1	2.30	4.00	115												
JUNE	2	2.30	4.00	115												
JULY	1	4.21	2.00	58												
JULY	2	4.21	2.00	58												
AUG	1	2.20	0.00	0												
AUG	2	2.20	0.00	0												
SEPT	1	0.00	0.00	0												
SEPT	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		18.72	14.00	404												

P DESIGNATES A PREIRRIGATION

204

IRRIGATION SCHEDULE AND PUMPING

TABLE B217

ENERGY REQUIREMENTS

REGION: OREGON  
 CROP: VEGETABLES (CORN)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 17

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	0.00	0												
MAY	1	.65	0.00	0												
MAY	2	.65	4.00	10	*****											
JUNE	1	2.30	5.00	12	*****											
JUNE	2	2.30	5.00	12	*****											
JULY	1	4.21	4.00	10	*****											
JULY	2	4.21	4.00	10	*****											
AUG	1	2.20	0.00	0												
AUG	2	2.20	0.00	0												
SEPT	1	0.00	0.00	0												
SEPT	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		18.72	22.00	54												

E DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

ENERGY REQUIREMENTS

REGION: OREGON  
 CROP: VEGETABLES (CORN)  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 17

TABLE B218

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	0.00	0												
MAY	1	.65	0.00	0												
MAY	2	.65	2.00	40	*****											
JUNE	1	2.30	4.00	80	*****											
JUNE	2	2.30	4.00	80	*****											
JULY	1	4.21	2.00	40	*****											
JULY	2	4.21	2.00	40	*****											
AUG	1	2.20	0.00	0												
AUG	2	2.20	0.00	0												
SEPT	1	0.00	0.00	0												
SEPT	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		18.72	14.00	280												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: POTATOES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B219

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	3.00 P	33	*****											
	2	0.00	0.00	0												
MAY	1	.10	0.00	0												
	2	.10	0.00	0												
JUNE	1	1.11	3.00	33	*****											
	2	1.11	3.00	33	*****											
JULY	1	3.61	4.00	45	*****											
	2	3.61	4.00	45	*****											
AUG	1	3.49	4.00	45	*****											
	2	3.49	4.00	45	*****											
SEPT	1	0.00	3.00	33	*****											
	2	0.00	3.00	33	*****											
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		16.62	31.00	345												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: POTATOES  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE E220

ENERGY REQUIREMENTS

DATE	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
FEB	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MARCH	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
APRIL	1	0.00	1.50 P	52	*****											
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
MAY	1	.10	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	.10	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
JUNE	1	1.11	1.00	35	*****											
	2	1.11	2.00	69	*****											
JULY	1	3.61	3.00	104	*****											
	2	3.61	3.00	104	*****											
AUG	1	3.49	3.00	104	*****											
	2	3.49	3.00	104	*****											
SEPT	1	0.00	2.00	69	*****											
	2	0.00	1.50	52	*****											
OCT	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
NOV	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
DEC	1	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
	2	0.00	0.00	0	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	16.62	20.00	693													

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: POTATOES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 17  
 FEET OF LIFT: 87

TABLE B22I

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE											
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55
JAN	0.00	0.00	0												
JAN	0.00	0.00	0												
FEB	0.00	0.00	0												
FEB	0.00	0.00	0												
MARCH	0.00	0.00	0												
MARCH	0.00	0.00	0												
APRIL	0.00	3.00 P	35	*****											
APRIL	0.00	0.00	0												
MAY	.10	0.00	0												
MAY	.10	0.00	0												
JUNE	1.11	3.00	35	*****											
JUNE	1.11	3.00	35	*****											
JULY	3.61	4.00	46	*****											
JULY	3.61	4.00	46	*****											
AUG	3.49	4.00	46	*****											
AUG	3.49	4.00	46	*****											
SEPT	0.00	3.00	35	*****											
SEPT	0.00	3.00	35	*****											
OCT	0.00	0.00	0												
OCT	0.00	0.00	0												
NOV	0.00	0.00	0												
NOV	0.00	0.00	0												
DEC	0.00	0.00	0												
DEC	0.00	0.00	0												
TOTALS	16.62	31.00	359												

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: POTATOES  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 17  
 FEET OF LIFT: 87

TABLE B222

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	0.00	0													
MARCH	0.00	0.00	0													
APRIL	0.00	1.50 P	53	*****												
APRIL	0.00	0.00	0													
MAY	.10	0.00	0													
MAY	.10	0.00	0													
JUNE	1.11	1.00	35	*****												
JUNE	1.11	2.00	70	*****												
JULY	3.61	3.00	105	*****												
JULY	3.61	3.00	105	*****												
AUG	3.49	3.00	105	*****												
AUG	3.49	3.00	105	*****												
SEPT	0.00	2.00	70	*****												
SEPT	0.00	1.50	53	*****												
OCT	0.00	0.00	0													
OCT	0.00	0.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	16.62	20.00	701													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B223

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.67	0.00	0													
	2	.67	0.00	0													
MAY	1	1.75	6.00	67	*****												
	2	1.75	0.00	0													
JUNE	1	2.52	4.00	45	*****												
	2	2.52	4.00	45	*****												
JULY	1	3.16	5.00	56	*****												
	2	3.16	5.00	56	*****												
AUG	1	2.77	5.00	56	*****												
	2	2.77	4.00	45	*****												
SEPT	1	1.06	4.00	45	*****												
	2	1.06	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		23.86	37.00	415													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: HANDROVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 84

TABLE B224

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.67	0.00	0													
	2	.67	0.00	0													
MAY	1	1.75	4.00	115	*****												
	2	1.75	0.00	0													
JUNE	1	2.52	3.00	86	*****												
	2	2.52	4.00	115	*****												
JULY	1	3.16	4.00	115	*****												
	2	3.16	4.00	115	*****												
AUG	1	2.77	3.00	86	*****												
	2	2.77	3.00	86	*****												
SEPT	1	1.06	2.00	58	*****												
	2	1.06	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS	23.86	27.00	776														

IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 17

TABLE B225

ENERGY REQUIREMENTS

TIME		WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
		CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.67	0.00	0													
	2	.67	0.00	0													
MAY	1	1.75	6.00	15													
	2	1.75	0.00	0													
JUNE	1	2.52	4.00	10													
	2	2.52	4.00	10													
JULY	1	3.16	5.00	12													
	2	3.16	5.00	12													
AUG	1	2.77	5.00	12													
	2	2.77	4.00	10													
SEPT	1	1.06	4.00	10													
	2	1.06	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		23.86	37.00	91													

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

REGION: OREGON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: HANDMOVE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 17

TABLE B226

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.67	0.00	0													
	2	.67	0.00	0													
MAY	1	1.75	4.00	80	*****												
	2	1.75	0.00	0													
JUNE	1	2.52	3.00	60	*****												
	2	2.52	4.00	80	*****												
JULY	1	3.16	4.00	80	*****												
	2	3.16	4.00	80	*****												
AUG	1	2.77	3.00	60	*****												
	2	2.77	3.00	60	*****												
SEPT	1	1.06	2.00	40	*****												
	2	1.06	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		23.86	27.00	540													

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B227

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	7.00 P	228	*****											
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	0.00	0												
	2	1.00	0.00	0												
JULY	1	2.75	5.00	163	*****											
	2	2.75	5.00	163	*****											
AUG	1	4.20	5.00	163	*****											
	2	4.20	5.00	163	*****											
SEPT	1	2.65	0.00	0												
	2	2.65	0.00	0												
OCT	1	.90	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		21.10	27.00	880												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: SORGHUM  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B228

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	4.00 P	225	*****												
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	0.00	0.00	0													
	2	1.00	0.00	0													
JULY	1	2.75	4.00	225	*****												
	2	2.75	4.00	225	*****												
AUG	1	4.20	4.00	225	*****												
	2	4.20	4.00	225	*****												
SEPT	1	2.65	0.00	0													
	2	2.65	0.00	0													
OCT	1	.90	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		21.10	20.00	1125													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: SORGHUM  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WAFFER: 5  
 FEET OF LIFT: 0

TABLE B229

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	7.00 P	2	**											
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	0.00	0.00	0												
JUNE	1	0.00	0.00	0												
	2	1.00	0.00	0												
JULY	1	2.75	5.00	1	*											
	2	2.75	5.00	1	*											
AUG	1	4.20	5.00	1	*											
	2	4.20	5.00	1	*											
SEPT	1	2.65	0.00	0												
	2	2.65	0.00	0												
OCT	1	.90	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		21.10	27.00	6												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B230

ENERGY REQUIREMENTS

REGION: TEXAS  
 CROP: SOYBEAN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TIME	WATER REQUIREMENTS INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	4.00 P	95	*****												
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	0.00	0.00	0													
JUNE	1	0.00	0.00	0													
	2	1.00	0.00	0													
JULY	1	2.75	4.00	95	*****												
	2	2.75	4.00	95	*****												
AUG	1	4.20	4.00	95	*****												
	2	4.20	4.00	95	*****												
SEPT	1	2.65	0.00	0													
	2	2.65	0.00	0													
OCT	1	.90	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		21.10	20.00	475													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: COTTON  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B231

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	6.00 P	196	*****												
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	0.00	0													
MAY	1	0.00	0.00	0													
	2	.60	0.00	0													
JUNE	1	1.15	0.00	0													
	2	1.15	0.00	0													
JULY	1	2.85	4.00	130	*****												
	2	2.85	0.00	0													
AUG	1	4.25	4.00	130	*****												
	2	4.25	0.00	0													
SEPT	1	2.25	0.00	0													
	2	2.25	0.00	0													
OCT	1	1.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		22.60	14.00	456													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE B232

ENERGY REQUIREMENTS

REGION: TEXAS  
 CROP: COTTON  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	30	60	90	120	150	180	210	240	270	300	330	360
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	337	*****											
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	.60	0.00	0												
JUNE	1	1.15	0.00	0												
	2	1.15	0.00	0												
JULY	1	2.85	2.00	112	*****											
	2	2.85	2.00	112	*****											
AUG	1	4.25	2.00	112	*****											
	2	4.25	2.00	112	*****											
SEPT	1	2.25	0.00	0												
	2	2.25	0.00	0												
OCT	1	1.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.60	14.00	785												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TFWAS  
 CROP: COTTON  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TABLE B233

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	6.00 P	2	**											
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	0.00	0												
MAY	1	0.00	0.00	0												
	2	.60	0.00	0												
JUNE	1	1.15	0.00	0												
	2	1.15	0.00	0												
JULY	1	2.85	4.00	1	*											
	2	2.85	0.00	0												
AUG	1	4.25	4.00	1	*											
	2	4.25	0.00	0												
SEPT	1	2.25	0.00	0												
	2	2.25	0.00	0												
OCT	1	1.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		22.60	14.00	4												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

TABLE B234

REGION: TEXAS  
 CROP: COTTON  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 3

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES	PUMPING ENERGY REQUIREMENT	ALLOWED HOURS/ACRE													
			CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE	0	15	30	45	60	75	90	105	120	135	150	165
JAN	1 : 0.00	0.00	0													
	2 : 0.00	0.00	0													
FEB	1 : 0.00	0.00	0													
	2 : 0.00	0.00	0													
MARCH	1 : 0.00	6.00 P	143	*****												
	2 : 0.00	0.00	0													
APRIL	1 : 0.00	0.00	0													
	2 : 0.00	0.00	0													
MAY	1 : 0.00	0.00	0													
	2 : .60	0.00	0													
JUNE	1 : 1.15	0.00	0													
	2 : 1.15	0.00	0													
JULY	1 : 2.85	2.00	48	*****												
	2 : 2.85	2.00	48	*****												
AUG	1 : 4.25	2.00	48	*****												
	2 : 4.25	2.00	48	*****												
SEPT	1 : 2.25	0.00	0													
	2 : 2.25	0.00	0													
OCT	1 : 1.00	0.00	0													
	2 : 0.00	0.00	0													
NOV	1 : 0.00	0.00	0													
	2 : 0.00	0.00	0													
DEC	1 : 0.00	0.00	0													
	2 : 0.00	0.00	0													
TOTALS	22.60	14.00	335													

P DESIGNATES A FREE IRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B23!

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE														
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180		
JAN	1	.55	0.00	0														
	2	.55	0.00	0														
FEB	1	.70	0.00	0														
	2	.70	0.00	0														
MARCH	1	1.25	0.00	0														
	2	1.25	0.00	0														
APRIL	1	2.80	4.50	147	*****													
	2	2.80	4.50	147	*****													
MAY	1	4.15	4.50	147	*****													
	2	4.15	0.00	0														
JUNE	1	2.75	0.00	0														
	2	2.75	0.00	0														
JULY	1	0.00	0.00	0														
	2	0.00	0.00	0														
AUG	1	0.00	0.00	0														
	2	0.00	4.50 P	147	*****													
SEPT	1	0.00	0.00	0														
	2	0.00	0.00	0														
OCT	1	0.00	4.50	147	*****													
	2	0.00	0.00	0														
NOV	1	.60	0.00	0														
	2	.60	0.00	0														
DEC	1	.65	4.50	147	*****													
	2	.65	0.00	0														
TOTALS		26.90	27.00	882														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B236

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	.55	0.00	0													
	2	.55	0.00	0													
FEB	1	.70	0.00	0													
	2	.70	0.00	0													
MARCH	1	1.25	0.00	0													
	2	1.25	0.00	0													
APRIL	1	2.80	3.50	197	*****												
	2	2.80	3.50	197	*****												
MAY	1	4.15	3.50	197	*****												
	2	4.15	0.00	0													
JUNE	1	2.75	0.00	0													
	2	2.75	0.00	0													
JULY	1	0.00	0.00	0													
	2	0.00	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	2.00 P	112	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	4.00	225	*****												
	2	0.00	0.00	0													
NOV	1	.60	0.00	0													
	2	.60	0.00	0													
DEC	1	.65	2.00	112	*****												
	2	.65	0.00	0													
TOTALS		26.90	18.50	1040													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TABLE B237

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	0.00	0												
	2	.70	0.00	0												
MARCH	1	1.25	0.00	0												
	2	1.25	0.00	0												
APRIL	1	2.80	4.50	1	*											
	2	2.80	4.50	1	*											
MAY	1	4.15	4.50	1	*											
	2	4.15	0.00	0												
JUNE	1	2.75	0.00	0												
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	4.50 P	1	*											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	4.50	1	*											
	2	0.00	0.00	0												
NOV	1	.60	0.00	0												
	2	.60	0.00	0												
DEC	1	.65	4.50	1	*											
	2	.65	0.00	0												
TOTALS		26.90	27.00	6												

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TABLE B238

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
				0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1 : .55	0.00	0														
	2 : .55	0.00	0														
FEB	1 : .70	0.00	0														
	2 : .70	0.00	0														
MARCH	1 : 1.25	0.00	0														
	2 : 1.25	0.00	0														
APRIL	1 : 2.80	3.50	84	*****													
	2 : 2.80	3.50	84	*****													
MAY	1 : 4.15	3.50	84	*****													
	2 : 4.15	0.00	0														
JUNE	1 : 2.75	0.00	0														
	2 : 2.75	0.00	0														
JULY	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
AUG	1 : 0.00	0.00	0														
	2 : 0.00	2.00 P	48	*****													
SEPT	1 : 0.00	0.00	0														
	2 : 0.00	0.00	0														
OCT	1 : 0.00	4.00	95	*****													
	2 : 0.00	0.00	0														
NOV	1 : .60	0.00	0														
	2 : .60	0.00	0														
DEC	1 : .65	2.00	48	*****													
	2 : .65	0.00	0														
TOTALS	26.90	18.50	443														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (NO FORAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B239

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																																
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180																																																																																																																																																																																																																																																																																																																																																																																																																																				
JAN	1	.55	0.00	0														2	.55	0.00	0													FEB	1	.70	0.00	0														2	.70	0.00	0													MARCH	1	1.25	0.00	0														2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588												
	2	.55	0.00	0													FEB	1	.70	0.00	0														2	.70	0.00	0													MARCH	1	1.25	0.00	0														2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																													
FEB	1	.70	0.00	0														2	.70	0.00	0													MARCH	1	1.25	0.00	0														2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																														
	2	.70	0.00	0													MARCH	1	1.25	0.00	0														2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																															
MARCH	1	1.25	0.00	0														2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																
	2	1.25	0.00	0													APRIL	1	2.80	4.50	147	*****																2	2.80	4.50	147	*****															MAY	1	4.15	4.50	147	*****																2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																	
APRIL	1	2.80	4.50	147	*****																																																																																																																																																																																																																																																																																																																																																																																																																																															
	2	2.80	4.50	147	*****																																																																																																																																																																																																																																																																																																																																																																																																																																															
MAY	1	4.15	4.50	147	*****																																																																																																																																																																																																																																																																																																																																																																																																																																															
	2	4.15	0.00	0													JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																														
JUNE	1	2.75	0.00	0														2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																															
	2	2.75	0.00	0													JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																
JULY	1	0.00	0.00	0														2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																	
	2	0.00	0.00	0													AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																		
AUG	1	0.00	0.00	0														2	0.00	4.50 P	147	*****															SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																			
	2	0.00	4.50 P	147	*****																																																																																																																																																																																																																																																																																																																																																																																																																																															
SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																								
	2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																									
OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																										
	2	0.00	0.00	0													NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																											
NOV	1	.60	0.00	0														2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																																												
	2	.60	0.00	0													DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																																																													
DEC	1	.65	0.00	0														2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																																																																														
	2	.65	0.00	0													TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																																																																																															
TOTALS		26.90	18.00	588																																																																																																																																																																																																																																																																																																																																																																																																																																																

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WINTER WHEAT (NO FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

TABLE B240

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	0.00	0												
	2	.70	0.00	0												
MARCH	1	1.25	0.00	0												
	2	1.25	0.00	0												
APRIL	1	2.60	3.50	197	*****											
	2	2.80	3.50	197	*****											
MAY	1	4.15	3.50	197	*****											
	2	4.15	0.00	0												
JUNE	1	2.75	0.00	0												
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	2.00 P	112	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	.60	0.00	0												
	2	.60	0.00	0												
DEC	1	.65	0.00	0												
	2	.65	0.00	0												
TOTALS		26.90	12.50	703												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: WHITE WHEAT (NO FOPAGE)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TABLE B24

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	0.00	0												
	2	.70	0.00	0												
MARCH	1	1.25	0.00	0												
	2	1.25	0.00	0												
APRIL	1	2.80	4.50	1	*											
	2	2.80	4.50	1	*											
MAY	1	4.15	4.50	1	*											
	2	4.15	0.00	0												
JUNE	1	2.75	0.00	0												
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	4.50 P	1	*											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	.60	0.00	0												
	2	.60	0.00	0												
DEC	1	.65	0.00	0												
	2	.65	0.00	0												
TOTALS		26.90	18.00	4												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

TABLE B242

ENERGY REQUIREMENTS

REGION: TEXAS  
 CROP: WINTER WHEAT (NO FORAGE)  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIET: 0

TIME	WATER REQUIREMENT INCHES :		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	.55	0.00	0												
	2	.55	0.00	0												
FEB	1	.70	0.00	0												
	2	.70	0.00	0												
MARCH	1	1.25	0.00	0												
	2	1.25	0.00	0												
APRIL	1	2.80	3.50	84	*****											
	2	2.80	3.50	84	*****											
MAY	1	4.15	3.50	84	*****											
	2	4.15	0.00	0												
JUNE	1	2.75	0.00	0												
	2	2.75	0.00	0												
JULY	1	0.00	0.00	0												
	2	0.00	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	2.00 P	48	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	.60	0.00	0												
	2	.60	0.00	0												
DEC	1	.65	0.00	0												
	2	.65	0.00	0												
TOTALS		26.90	12.50	300												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS

TABLE B243

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 95

FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240																																																																																																																																																																																																																																																																																																																																																																																																																																																
JAN	1	0.00	0.00	0														2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	7.00 P	228	*****																APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913												
	2	0.00	0.00	0													FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	7.00 P	228	*****																APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																													
FEB	1	0.00	0.00	0														2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	7.00 P	228	*****																APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																														
	2	0.00	0.00	0													MARCH	1	0.00	0.00	0														2	0.00	7.00 P	228	*****																APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																															
MARCH	1	0.00	0.00	0														2	0.00	7.00 P	228	*****																APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																
	2	0.00	7.00 P	228	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
APRIL	1	0.00	0.00	0														2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																						
	2	.30	0.00	0													MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																							
MAY	1	1.15	0.00	0														2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																								
	2	1.15	0.00	0													JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																									
JUNE	1	2.65	0.00	0														2	2.65	5.00	163	*****																JULY	1	4.95	5.00	163	*****																	2	4.95	5.00	163	*****																AUG	1	4.60	3.00	98	*****																	2	4.60	3.00	98	*****																SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																										
	2	2.65	5.00	163	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
JULY	1	4.95	5.00	163	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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	2	4.60	3.00	98	*****																																																																																																																																																																																																																																																																																																																																																																																																																																																											
SEPT	1	0.00	0.00	0														2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																				
	2	0.00	0.00	0													OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																					
OCT	1	0.00	0.00	0														2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																						
	2	0.00	0.00	0													NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																							
NOV	1	0.00	0.00	0														2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																																								
	2	0.00	0.00	0													DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																																																									
DEC	1	0.00	0.00	0														2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																																																																										
	2	0.00	0.00	0													TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																																																																																											
TOTALS		27.00	28.00	913																																																																																																																																																																																																																																																																																																																																																																																																																																																												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

TABLE I-244

REGION: TEXAS  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 95  
 FEET OF LIFT: 250

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	4.00 P	225	*****											
APRIL	1	0.00	0.00	0												
	2	.30	0.00	0												
MAY	1	1.15	0.00	0												
	2	1.15	0.00	0												
JUNE	1	2.65	0.00	0												
	2	2.65	4.00	225	*****											
JULY	1	4.95	4.00	225	*****											
	2	4.95	4.00	225	*****											
AUG	1	4.60	2.50	140	*****											
	2	4.60	2.00	112	*****											
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		27.00	20.50	1152												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS

TABLE B245

CROP: CORN

TECHNIQUE: OPEN DITCH WITHOUT PUMPBACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 5

FEET OF LIFT: 0

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (FT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	0.00	0.00	0													
JAN	0.00	0.00	0													
FEB	0.00	0.00	0													
FEB	0.00	0.00	0													
MARCH	0.00	0.00	0													
MARCH	0.00	7.00 P	2	**												
APRIL	0.00	0.00	0													
APRIL	.30	0.00	0													
MAY	1.15	0.00	0													
MAY	1.15	0.00	0													
JUNE	2.65	0.00	0													
JUNE	2.65	5.00	1	*												
JULY	4.95	5.00	1	*												
JULY	4.95	5.00	1	*												
AUG	4.60	3.00	1	*												
AUG	4.60	3.00	1	*												
SEPT	0.00	0.00	0													
SEPT	0.00	0.00	0													
OCT	0.00	0.00	0													
OCT	0.00	0.00	0													
NOV	0.00	0.00	0													
NOV	0.00	0.00	0													
DEC	0.00	0.00	0													
DEC	0.00	0.00	0													
TOTALS	27.00	28.00	7													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: TEXAS  
 CROP: CORN  
 TECHNIQUE: CENTER PIVOT  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 5  
 FEET OF LIFT: 0

TABLE B246

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONJUNCTIVE USE (ST)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	4.00 P	95	*****												
APRIL	1	0.00	0.00	0													
	2	0.30	0.00	0													
MAY	1	1.15	0.00	0													
	2	1.15	0.00	0													
JUNE	1	2.65	0.00	0													
	2	2.65	4.00	95	*****												
JULY	1	4.95	4.00	95	*****												
	2	4.95	4.00	95	*****												
AUG	1	4.60	2.50	60	*****												
	2	4.60	2.00	48	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		27.00	20.50	486													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON

TABLE B24

CROP: HAY

TECHNIQUE: OPEN DITCH WITHOUT PUMP LACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 13

FEET OF LIFT: 212

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	1	0.00	0													
	2	0.00	0													
FEB	1	0.00	0													
	2	0.00	0													
MARCH	1	0.00	0													
	2	0.00	0													
APRIL	1	.97	0													
	2	.97	111													
MAY	1	2.58	111													
	2	2.58	138													
JUNE	1	3.45	138													
	2	3.45	166													
JULY	1	4.27	180													
	2	4.27	180													
AUG	1	3.60	152													
	2	3.60	152													
SEPT	1	2.21	111													
	2	2.21	0													
OCT	1	.59	0													
	2	.59	0													
NOV	1	0.00	0													
	2	0.00	0													
DEC	1	0.00	0													
	2	0.00	0													
TOTALS	35.34	52.00	1439													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON

TABLE B248

CROP: HAY

TECHNIQUE: SIDE ROLL

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 13

FEET OF LIFT: 212

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	.97	0.00	0												
	2	.97	2.00	91	*****											
MAY	1	2.53	3.00	136	*****											
	2	2.58	3.50	159	*****											
JUNE	1	3.45	3.50	159	*****											
	2	3.45	4.00	181	*****											
JULY	1	4.27	4.50	204	*****											
	2	4.27	4.50	204	*****											
AUG	1	3.60	4.00	181	*****											
	2	3.60	3.50	159	*****											
SEPT	1	2.21	3.00	136	*****											
	2	2.21	0.00	0												
OCT	1	.59	0.00	0												
	2	.59	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		35.34	35.50	1610												

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON

TABLE B249

CROP: HAY

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 87

FEET OF LIFT: 20

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACFE	KILOWATT-HOURS/ACFE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	.97	0.00	0													
	2	.97	4.00	12	*****												
MAY	1	2.58	4.00	12	*****												
	2	2.58	5.00	14	*****												
JUNE	1	3.45	5.00	14	*****												
	2	3.45	6.00	17	*****												
JULY	1	4.27	6.50	19	*****												
	2	4.27	6.50	19	*****												
AUG	1	3.60	5.50	16	*****												
	2	3.60	5.50	16	*****												
SEPT	1	2.21	4.00	12	*****												
	2	2.21	0.00	0													
OCT	1	.59	0.00	0													
	2	.59	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		35.34	52.00	151													

P DESIGNATES A PREIRRIGATION





IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: GRAIN (WINTER WHEAT)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 212

TABLE B251

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	2.25	5.00	138	*****												
	2	2.25	4.00	111	*****												
MAY	1	3.45	4.00	111	*****												
	2	3.45	4.00	111	*****												
JUNE	1	4.16	4.00	111	*****												
	2	4.16	0.00	0													
JULY	1	2.27	0.00	0													
	2	2.27	0.00	0													
AUG	1	0.00	0.00	0													
	2	0.00	0.00	0													
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	4.00 P	111	*****												
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		24.26	25.00	693													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: GRAIN (WINTER WHEAT)  
 TECHNIQUE: SIDE SOLL  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 212

TABLE B252

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180
JAN	0.00	0.00	0													
	0.00	0.00	0													
FEB	0.00	0.00	0													
	0.00	0.00	0													
MARCH	0.00	0.00	0													
	0.00	0.00	0													
APRIL	2.25	3.00	136													
	2.25	2.00	91													
MAY	3.45	2.00	91													
	3.45	2.00	91													
JUNE	4.16	3.00	136													
	4.16	0.00	0													
JULY	2.27	0.00	0													
	2.27	0.00	0													
AUG	0.00	0.00	0													
	0.00	0.00	0													
SEPT	0.00	0.00	0													
	0.00	0.00	0													
OCT	0.00	0.00	0													
	0.00	3.00 P	136													
NOV	0.00	0.00	0													
	0.00	0.00	0													
DEC	0.00	0.00	0													
	0.00	0.00	0													
TOTALS	24.26	15.00	661													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: GRAIN (WINTER WHEAT)  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 20

TABLE B253

ENERGY REQUIREMENTS

TIME	WATER EQUIPMENT INCHES		PUMPING ENERGY EQUIPMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	2.25	5.00	14												
	2	2.25	4.00	12												
MAY	1	3.45	4.00	12												
	2	3.45	4.00	12												
JUNE	1	4.16	4.00	12												
	2	4.16	0.00	0												
JULY	1	2.27	0.00	0												
	2	2.27	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	4.00 p	12												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		24.26	25.00	74												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

ENERGY REQUIREMENTS

PLANT: WASHINGTON  
 CROP: GRAIN (WINTER WHEAT)  
 TECHNIQUE: SUBS ICLL  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 20

TABLE B254

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY EQUIVALENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	2.25	3.00	61	*****											
	2	2.25	2.00	41	*****											
MAY	1	3.45	2.00	41	*****											
	2	3.45	2.00	41	*****											
JUNE	1	4.16	3.00	61	*****											
	2	4.16	0.00	0												
JULY	1	2.27	0.00	0												
	2	2.27	0.00	0												
AUG	1	0.00	0.00	0												
	2	0.00	0.00	0												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	3.00 P	61	*****											
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		24.26	15.00	306												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 212

TABLE B2

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	15	30	45	60	75	90	105	120	135	150	165	180	
JAN	1	0.00	0.00	0													
JAN	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
FEB	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
MARCH	2	0.00	0.00	0													
APRIL	1	1.18	0.00	0													
APRIL	2	1.18	0.00	0													
MAY	1	2.55	5.00	138	*****												
MAY	2	2.55	5.00	138	*****												
JUNE	1	3.51	5.00	138	*****												
JUNE	2	3.51	6.00	166	*****												
JULY	1	4.33	6.00	166	*****												
JULY	2	4.33	6.00	166	*****												
AUG	1	3.52	6.00	166	*****												
AUG	2	3.52	6.00	166	*****												
SEPT	1	2.10	4.00	111	*****												
SEPT	2	2.10	4.00	111	*****												
OCT	1	0.00	4.00	111	*****												
OCT	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
NOV	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
DEC	2	0.00	0.00	0													
TOTALS		34.38	57.00	1577													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 212

TABLE B256

ENERGY REQUIREMENTS

TIME	LATER REQUIREMENT INCHES CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE	PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE														
				0	20	40	60	80	100	120	140	160	180	200	220	240		
JAN	1	0.00	0.00	0														
JAN	2	0.00	0.00	0														
FEB	1	0.00	0.00	0														
FEB	2	0.00	0.00	0														
MARCH	1	0.00	0.00	0														
MARCH	2	0.00	0.00	0														
APRIL	1	1.18	0.00	0														
APRIL	2	1.18	0.00	0														
MAY	1	2.55	3.00	127														
MAY	2	2.55	3.00	127														
JUNE	1	3.51	4.00	169														
JUNE	2	3.51	4.00	169														
JULY	1	4.33	5.00	212														
JULY	2	4.33	5.00	212														
AUG	1	3.52	4.00	169														
AUG	2	3.52	4.00	169														
SEPT	1	2.10	3.00	127														
SEPT	2	2.10	3.00	127														
OCT	1	0.00	3.00	127														
OCT	2	0.00	0.00	0														
NOV	1	0.00	0.00	0														
NOV	2	0.00	0.00	0														
DEC	1	0.00	0.00	0														
DEC	2	0.00	0.00	0														
TOTALS		34.38	41.00	1735														

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: FRUIT-NUTS-BERRIES  
 TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 FEET OF LIFT: 20

TABLE B257

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	1.18	0.00	0												
	2	1.18	0.00	0												
MAY	1	2.55	5.00	14	*****											
	2	2.55	5.00	14	*****											
JUNE	1	3.51	5.00	14	*****											
	2	3.51	6.00	17	*****											
JULY	1	4.33	6.00	17	*****											
	2	4.33	6.00	17	*****											
AUG	1	3.52	6.00	17	*****											
	2	3.52	6.00	17	*****											
SEPT	1	2.10	4.00	12	*****											
	2	2.10	4.00	12	*****											
OCT	1	0.00	4.00	12	*****											
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		34.38	57.00	163												

P DESIGNATES A PREIRRIGATION



IRRIGATION SCHEDULE AND PUMPING

TABLE B258

REGION: WASHINGTON  
 CROP: PRUIT-PUTS-BERRIES  
 TECHNIQUE: SOLID SET  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 97  
 FEET OF LIST: 20

ENERGY REQUIREMENTS

TIME	DATE	EQUIPMENT LINES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
		CONSUMPTIVE USE (EI)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120	
	1	0.00	0.00	0														
JAN	2	0.00	0.00	0														
	1	0.00	0.00	0														
FEB	2	0.00	0.00	0														
	1	0.00	0.00	0														
MARCH	2	0.00	0.00	0														
	1	1.18	0.00	0														
APRIL	2	1.18	0.00	0														
	1	2.55	3.00	53	*****													
MAY	2	2.55	3.00	53	*****													
	1	3.51	4.00	70	*****													
JUNE	2	3.51	4.00	70	*****													
	1	4.33	5.00	88	*****													
JULY	2	4.33	5.00	88	*****													
	1	3.52	4.00	70	*****													
AUG	2	3.52	4.00	70	*****													
	1	2.10	3.00	53	*****													
SEPT	2	2.10	3.00	53	*****													
	1	0.00	3.00	53	*****													
OCT	2	0.00	0.00	0														
	1	0.00	0.00	0														
NOV	2	0.00	0.00	0														
	1	0.00	0.00	0														
DEC	2	0.00	0.00	0														
TOTALS		34.38	41.00	721														

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON

TABLE B25

CROP: VEGETABLES

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: GROUND WATER

PERCENT GROUND WATER: 13

FEET OF LIFT: 212

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE													
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240	
JAN	1	0.00	0.00	0													
	2	0.00	0.00	0													
FEB	1	0.00	0.00	0													
	2	0.00	0.00	0													
MARCH	1	0.00	0.00	0													
	2	0.00	0.00	0													
APRIL	1	0.00	0.00	0													
	2	0.00	4.00	111	*****												
MAY	1	.98	4.00	111	*****												
	2	.98	4.00	111	*****												
JUNE	1	2.02	6.00	166	*****												
	2	2.02	6.00	166	*****												
JULY	1	3.14	7.00	194	*****												
	2	3.14	7.00	194	*****												
AUG	1	2.49	4.00	111	*****												
	2	2.49	4.00	111	*****												
SEPT	1	0.00	0.00	0													
	2	0.00	0.00	0													
OCT	1	0.00	0.00	0													
	2	0.00	0.00	0													
NOV	1	0.00	0.00	0													
	2	0.00	0.00	0													
DEC	1	0.00	0.00	0													
	2	0.00	0.00	0													
TOTALS		17.26	46.00	1275													

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: VEGETABLES  
 TECHNIQUE: HARDBOVE  
 WATER SOURCE: GROUND WATER  
 PERCENT GROUND WATER: 13  
 FEET OF LIFT: 212

TABLE B260

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	20	40	60	80	100	120	140	160	180	200	220	240
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	2.50	113	*****											
MAY	1	.98	3.00	136	*****											
MAY	2	.98	3.00	136	*****											
JUNE	1	2.02	4.00	181	*****											
JUNE	2	2.02	4.00	181	*****											
JULY	1	3.14	5.00	226	*****											
JULY	2	3.14	4.50	204	*****											
AUG	1	2.49	2.50	113	*****											
AUG	2	2.49	2.50	113	*****											
SEPT	1	0.00	0.00	0												
SEPT	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		17.26	31.00	1403												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON

TABLE B261

CROP: VEGETABLES

TECHNIQUE: OPEN DITCH WITHOUT PUMP BACK

WATER SOURCE: SURFACE WATER

PERCENT SURFACE WATER: 87

FEET OF LIFT: 20

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (BT)	IRRIGATION SCHEDULE		0	5	10	15	20	25	30	35	40	45	50	55	60
JAN	1	0.00	0.00	0												
	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
	2	0.00	4.00	12												
MAY	1	.98	4.00	12												
	2	.98	4.00	12												
JUNE	1	2.02	6.00	17												
	2	2.02	6.00	17												
JULY	1	3.14	7.00	20												
	2	3.14	7.00	20												
AUG	1	2.49	4.00	12												
	2	2.49	4.00	12												
SEPT	1	0.00	0.00	0												
	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
	2	0.00	0.00	0												
TOTALS		17.26	45.00	134												

P DESIGNATES A PREIRRIGATION

IRRIGATION SCHEDULE AND PUMPING

REGION: WASHINGTON  
 CROP: VEGETABLES  
 TECHNIQUE: SUBSURFACE  
 WATER SOURCE: SURFACE WATER  
 PERCENT SURFACE WATER: 87  
 NET G.L. LIFT: 20

TABLE B262

ENERGY REQUIREMENTS

TIME	WATER REQUIREMENT INCHES		PUMPING ENERGY REQUIREMENT KWH/ACRE	KILOWATT-HOURS/ACRE												
	CONSUMPTIVE USE (ET)	IRRIGATION SCHEDULE		0	10	20	30	40	50	60	70	80	90	100	110	120
JAN	1	0.00	0.00	0												
JAN	2	0.00	0.00	0												
FEB	1	0.00	0.00	0												
FEB	2	0.00	0.00	0												
MARCH	1	0.00	0.00	0												
MARCH	2	0.00	0.00	0												
APRIL	1	0.00	0.00	0												
APRIL	2	0.00	2.50	51												
MAY	1	.98	3.00	61												
MAY	2	.98	3.00	61												
JUNE	1	2.02	4.00	82												
JUNE	2	2.02	4.00	82												
JULY	1	3.14	5.00	102												
JULY	2	3.14	4.50	92												
AUG	1	2.49	2.50	51												
AUG	2	2.49	2.50	51												
SEPT	1	0.00	0.00	0												
SEPT	2	0.00	0.00	0												
OCT	1	0.00	0.00	0												
OCT	2	0.00	0.00	0												
NOV	1	0.00	0.00	0												
NOV	2	0.00	0.00	0												
DEC	1	0.00	0.00	0												
DEC	2	0.00	0.00	0												
TOTALS		17.26	31.00	633												

P DESIGNATES A PREIRRIGATION

APPENDIX C  
IRRIGATION COSTS

TABLE C1

AVERAGE PRICE OF ENERGY (\$/KWH): .031

REGION: ARIZONA

WELL DEPTH (FEET): 1200

LIFT (FEET): 375

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH 10 PB AIA= 66	DITCH 7/ PB AIA= 55	CENTER PIVOT AIA= 41	SIDE ROLL AIA= 44	AIA= 0
D O L L A R S / A C R E					
I. CAPITAL EXPENDITURES					
A. TOTAL NETWORK COSTS	240	275	275	285	0
* ANNUAL COST	24	28	44	47	0
B. TOTAL WELL AND PUMP COSTS	421	421	640	520	0
* ANNUAL COST	50	50	83	70	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>74</u>	<u>78</u>	<u>173</u>	<u>117</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	45	5	27	0
B. REPAIRS	3	3	13	13	0
C. POWER	100	85	92	90	0
D. IRRIGATION PREPARATION	20	25	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>163</u>	<u>158</u>	<u>110</u>	<u>130</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>237</u>	<u>236</u>	<u>283</u>	<u>247</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C2

AVERAGE PRICE OF ENERGY (\$/KWH) : .042

REGION: CALIFORNIA, SACRAMENTO VALLEY

WELL DEPTH (FEET) : 90

LIFT (FEET) : 53

IRRIGATION SYSTEM COST \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PE AIA= 46	PIPE W/O PE AIA= 38	HANDMOVE AIA= 31	SIDE ROLL AIA= 31	AIA= 0
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	390	225	285	0
* ANNUAL COST	24	41	36	47	0
B. TOTAL WELL AND PUMP COSTS	48	48	126	126	0
* ANNUAL COST	7	7	18	18	0
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>31</u>	<u>48</u>	<u>54</u>	<u>65</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	54	27	0
B. REPAIRS	2	2	15	13	0
C. POWER	14	14	32	32	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>76</u>	<u>46</u>	<u>101</u>	<u>72</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>107</u>	<u>94</u>	<u>155</u>	<u>137</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED



TABLE C3

AVERAGE PRICE OF ENERGY (¢/KWH) : .042

REGION: CALIFORNIA, SAN JOAQUIN DELTA

WELL DEPTH (FEET) : 145

LIFT (FEET) : 89

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 44	PIPE W/O PB AIA= 37	HANDMOVE AIA= 29	SIDE POLL AIA= 29	AIA= 0
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	390	225	285	0
* ANNUAL COST	24	41	36	47	0
B. TOTAL WELL AND PUMP COSTS	89	89	128	128	0
* ANNUAL COST	13	13	18	18	0
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>37</u>	<u>54</u>	<u>54</u>	<u>65</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	54	27	0
B. REPAIRS	2	2	14	13	0
C. POWER	22	20	36	36	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>84</u>	<u>52</u>	<u>104</u>	<u>76</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>121</u>	<u>106</u>	<u>158</u>	<u>141</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C4

AVERAGE PRICE OF ENERGY (\$/KWH): .042

REGION: CALIFORNIA, UPPER SAN JOAQUIN

WELL DEPTH (FEET): 200

LIFT (FEET): 123

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	PIPE W/O PB AIA= 43	PIPE W/PL AIA= 36	HANDHOVE AIA= 34	SOLID SET AIA= 32	AIA= 0
D O L L A R S / A C R E					
I. CAPITAL EXPENDITURES					
A. TOTAL NETWORK COSTS	390	440	225	800	0
* ANNUAL COST	41	49	36	88	0
B. TOTAL WELL AND PUMP COSTS	133	133	176	176	0
* ANNUAL COST	19	19	25	25	0
C. UNUCED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>60</u>	<u>68</u>	<u>61</u>	<u>113</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	20	22	54	9	0
B. REPAIRS	2	2	15	25	0
C. POWER	31	31	48	42	0
D. IRRIGATION PREPARATION	10	15	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>63</u>	<u>70</u>	<u>117</u>	<u>76</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>123</u>	<u>138</u>	<u>178</u>	<u>189</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C5

AVERAGE PRICE OF ENERGY (\$/KWH): .042

REGION: CALIFORNIA, LOWER SAN JOAQUIN

WELL DEPTH (FEET): 250

LIFT (FEET): 181

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	PIPE W/O PB AIA= 46	PIPE W/PB AIA= 39	HANDMOVE AIA= 37	SIDE ROLL AIA= 37	DRIP/TRICKLE AIA= 29
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	390	440	225	285	550
* ANNUAL COST	41	49	36	47	88
B. TOTAL WELL AND PUMP COSTS	142	142	187	187	165
* ANNUAL COST	21	21	25	25	23
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>62</u>	<u>70</u>	<u>61</u>	<u>72</u>	<u>111</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	20	23	54	27	18
B. REPAIRS	2	2	15	13	34
C. POWER	49	47	64	64	38
D. IRRIGATION PREPARATION	10	15	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>81</u>	<u>87</u>	<u>133</u>	<u>104</u>	<u>90</u>
TOTAL ANNUAL SYSTEM COSTS	<u>143</u>	<u>157</u>	<u>194</u>	<u>176</u>	<u>201</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C6

AVERAGE PRICE OF ENERGY (\$/KWH) : .042

REGION: CALIFORNIA, IMPERIAL AND COACHELLA

WELL DEPTH (FEET) : 200

LIFT (FEET) : 124

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 67	DITCH W/PB AIA= 56	AIA= 0	AIA= 0	AIA= 0
D O L L A R S / A C R E					
I. CAPITAL EXPENDITURES					
A. TOTAL NETWORK COSTS	240	275	0	0	0
* ANNUAL COST	24	28	0	0	0
B. TOTAL WELL AND PUMP COSTS	133	133	0	0	0
* ANNUAL COST	19	19	0	0	0
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>43</u>	<u>47</u>	<u>0</u>	<u>0</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	45	0	0	0
B. REPAIRS	3	3	0	0	0
C. POWER	46	45	0	0	0
D. IRRIGATION PREPARATION	20	25	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>109</u>	<u>118</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>152</u>	<u>165</u>	<u>0</u>	<u>0</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C7

AVERAGE PRICE OF ENERGY (\$/KWH): .042

REGION: CALIFORNIA, CENTRAL COAST

WELL DEPTH (FEET): 150

LIFT (FEET): 103

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	PIPE W/C PE AIA= 31	PIPE W/PE AIA= 26	HANDMOVE AIA= 24	SIDE ROLL AIA= 24	DIP TRICKLE AIA= 19
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	390	440	225	285	550
* ANNUAL COST	41	49	36	46	88
B. TOTAL WELL AND PUMP COSTS	91	91	135	135	100
* ANNUAL COST	12	12	19	19	14
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>53</u>	<u>61</u>	<u>55</u>	<u>65</u>	<u>102</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	20	23	54	27	18
B. REPAIRS	2	2	14	13	35
C. POWER	20	20	32	32	16
D. IRRIGATION PREPARATION	10	15	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>52</u>	<u>60</u>	<u>100</u>	<u>72</u>	<u>69</u>
TOTAL ANNUAL SYSTEM COSTS	<u>105</u>	<u>121</u>	<u>155</u>	<u>137</u>	<u>171</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C8

AVERAGE PRICE OF ENERGY (¢/KWH): .030

REGION: COLORADO

WELL DEPTH (FEET): 200

LIFT (FEET): 120

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 38	PIPE W/O PB AIA= 32	CENTER PIVOT AIA= 24	SIDE ROLL AIA= 25	AIA= 0
D O L L A R S / A C R E					
I. CAPITAL EXPENDITURES					
A. TOTAL NETWORK COSTS	240	390	275	285	0
* ANNUAL COST	24	41	44	46	0
B. TOTAL WELL AND PUMP COSTS	133	133	212	173	0
* ANNUAL COST	19	19	30	24	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>43</u>	<u>60</u>	<u>120</u>	<u>70</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	5	27	0
B. REPAIRS	2	2	12	12	0
C. POWER	18	16	29	25	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>80</u>	<u>48</u>	<u>46</u>	<u>64</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>123</u>	<u>108</u>	<u>166</u>	<u>134</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C9

AVERAGE PRICE OF ENERGY (¢/KWH) : .040

REGION: HAWAII

WELL DEPTH (FEET) : 300

LIFT (FEET) : 250

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 87	DRIP TRICKLE AIA= 46	AIA= 0	AIA= 0	AIA= 0
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	550	0	0	0
* ANNUAL COST	24	88	0	0	0
B. TOTAL WELL AND PUMP COSTS	158	197	0	0	0
* ANNUAL COST	21	28	0	0	0
C. UNUSED LAND COSTS	0	0	0	0	0
* ANNUAL COST	0	0	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	45	116	0	0	0
II. OPERATION AND MAINTENANCE					
A. LABOR	40	18	0	0	0
B. REPAIRS	4	34	0	0	0
C. POWER	101	67	0	0	0
D. IRRIGATION PREPARATION	20	0	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	165	119	0	0	0
TOTAL ANNUAL SYSTEM COSTS	210	235	0	0	0

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C10

AVERAGE PRICE OF ENERGY (\$/KWH): .014

REGION: IDAHO

WELL DEPTH (FEET): 300

LIFT (FEET): 252

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PE AIA= 42	CENTER PIVOT AIA= 26	HANDMOVE AIA= 28	SIDE ROLL AIA= 28	AIA= 0
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	275	225	285	0
* ANNUAL COST	24	44	36	46	0
B. TOTAL WELL AND PUMP COSTS	158	303	247	247	0
* ANNUAL COST	21	43	34	34	0
C. UNUSED LAND COSTS	0	460	0	0	0
* ANNUAL COST	0	46	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>45</u>	<u>133</u>	<u>70</u>	<u>80</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	5	54	27	0
B. REPAIRS	2	12	14	12	0
C. POWER	20	20	20	20	0
D. IRRIGATION PREPARATION	20	0	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>82</u>	<u>37</u>	<u>88</u>	<u>59</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>127</u>	<u>170</u>	<u>158</u>	<u>139</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED



TABLE C11

AVERAGE PRICE OF ENERGY (\$/MCH): .800

REGION: KANSAS

WELL DEPTH (FEET): 500

LIFT (FEET): 225

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PF AIA= 33	PIPE W/O PB AIA= 27	CENTER PIVOT AIA= 21	SIDE ROLL AIA= 22	AIA= 0
J. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	390	275	285	0
* ANNUAL COST	24	41	44	46	0
B. TOTAL WELL AND PUMP COSTS	150	150	235	191	0
* ANNUAL COST	21	21	33	27	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>45</u>	<u>62</u>	<u>123</u>	<u>73</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	5	27	0
B. REPAIRS	1	1	12	12	0
C. POWER	11	9	12	12	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>72</u>	<u>40</u>	<u>29</u>	<u>51</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>117</u>	<u>102</u>	<u>152</u>	<u>124</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C12

AVERAGE PRICE OF ENERGY (\$/KWH): .045

REGION: NEBRASKA

WELL DEPTH (FEET): 160

LIFT (FEET): 103

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PE AIA= 27	PIPE W/O PE AIA= 23	CENTER PIVOT AIA= 17	HANDROVE AIA= 18	AIA= 0
I. CAPITAL EXPENDITURES	D O L L A R S / A C R E				
A. TOTAL NETWORK COSTS	240	390	275	225	0
* ANNUAL COST	24	41	44	36	0
B. TOTAL WELL AND PUMP COSTS	91	91	166	135	0
* ANNUAL COST	12	12	22	19	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>36</u>	<u>53</u>	<u>112</u>	<u>55</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	5	54	0
B. REPAIRS	1	1	12	14	0
C. POWER	18	16	29	26	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>79</u>	<u>47</u>	<u>46</u>	<u>94</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>115</u>	<u>100</u>	<u>158</u>	<u>149</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C13

AVERAGE PRICE OF ENERGY (\$/MCF) : 1.650

REGION: NEW MEXICO

WELL DEPTH (FEET) : 300

LIFT (FEET) : 250

## IRRIGATION SYSTEMS

IRRIGATION SYSTEM  
COSTS, \$/ACDITCH W/O PB  
AIA= 27PIPE W/O PB  
AIA= 23CENTER PIVOT  
AIA= 17SIDE ROLL  
AIA= 18

AIA= 0

## I. CAPITAL EXPENDITURES

D O L L A R S / A C R E

	DITCH W/O PB AIA= 27	PIPE W/O PB AIA= 23	CENTER PIVOT AIA= 17	SIDE ROLL AIA= 18	AIA= 0
A. TOTAL NETWORK COSTS	240	390	275	285	0
* ANNUAL COST	24	41	44	45	0
B. TOTAL WELL AND PUMP COSTS	155	155	235	191	0
* ANNUAL COST	21	21	33	27	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>45</u>	<u>62</u>	<u>123</u>	<u>72</u>	<u>0</u>

## II. OPERATION AND MAINTENANCE

A. LABOR	40	20	5	27	0
B. REPAIRS	1	1	12	12	0
C. POWER	19	17	21	20	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>80</u>	<u>48</u>	<u>38</u>	<u>59</u>	<u>0</u>

TOTAL ANNUAL SYSTEM COSTS	<u>125</u>	<u>110</u>	<u>161</u>	<u>131</u>	<u>0</u>
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NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C14

AVERAGE PRICE OF ENERGY (\$/MCF): 1.150

REGION: OKLAHOMA

WELL DEPTH (FEET): 400

LIFT (FEET): 275

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PE AIA= 24	PIPE W/O PE AIA= 20	CENTER PIVOT AIA= 15	SIDE ROLL AIA= 16	AIA= 0
D O L L A R S / A C R E					
I. CAPITAL EXPENDITURES					
A. TOTAL NETWORK COSTS	240	390	275	285	0
* ANNUAL COST	24	41	44	46	0
B. TOTAL WELL AND PUMP COSTS	164	164	252	205	0
* ANNUAL COST	23	23	35	29	0
C. UNUSED LAND COSTS	0	0	460	0	0
* ANNUAL COST	0	0	46	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>47</u>	<u>64</u>	<u>125</u>	<u>75</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	20	5	27	0
B. REPAIRS	1	1	12	12	0
C. POWER	13	11	14	13	0
D. IRRIGATION PREPARATION	20	10	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>74</u>	<u>42</u>	<u>31</u>	<u>52</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>121</u>	<u>106</u>	<u>156</u>	<u>127</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C15

AVERAGE PRICE OF ENERGY (\$/KWH) : .020

REGION: OREGON

WELL DEPTH (FEET) : 125

LIFT (FEET) : 84

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 34	CENTER PIVOT AIA= 21	HANDMOVE AIA= 23	SIDE ROLL AIA= 23	AIA= 0
I. CAPITAL EXPENDITURES					
D O L L A R S / A C R E					
A. TOTAL NETWORK COSTS	240	275	225	285	0
* ANNUAL COST	24	44	36	46	0
B. TOTAL WELL AND PUMP COSTS	89	157	128	128	0
* ANNUAL COST	13	22	18	18	0
C. UNUSED LAND COSTS	0	460	0	0	0
* ANNUAL COST	0	46	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>37</u>	<u>112</u>	<u>54</u>	<u>64</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	5	54	27	0
B. REPAIRS	1	12	14	12	0
C. POWER	7	14	12	12	0
D. IRRIGATION PREPARATION	20	0	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>68</u>	<u>31</u>	<u>80</u>	<u>51</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>105</u>	<u>143</u>	<u>134</u>	<u>115</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C16

AVERAGE PRICE OF ENERGY (\$/MCF): 1.500

REGION: TEXAS

WELL DEPTH (FEET): 400

LIFT (FEET): 250

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PB AIA= 25	CENTER PIVOT AIA= 16	HANDMOVE AIA= 17	SIDE ROLL AIA= 17	AIA= 0
I. CAPITAL EXPENDITURES	D O L L A R S / A C R E				
A. TOTAL NETWORK COSTS	240	275	225	285	0
* ANNUAL COST	24	44	36	135	0
B. TOTAL WELL AND PUMP COSTS	164	252	205	205	0
* ANNUAL COST	23	35	29	29	0
C. UNUSED LAND COSTS	0	460	0	0	0
* ANNUAL COST	0	46	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>47</u>	<u>125</u>	<u>65</u>	<u>164</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	5	54	27	0
B. REPAIRS	1	12	14	12	0
C. POWER	16	18	17	17	0
D. IRRIGATION PREPARATION	20	0	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>77</u>	<u>35</u>	<u>85</u>	<u>56</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>124</u>	<u>160</u>	<u>150</u>	<u>220</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

TABLE C17

AVERAGE PRICE OF ENERGY (\$/KWH) : .005

REGION: WASHINGTON

WELL DEPTH (FEET) : 300

LIFT (FEET) : 225

IRRIGATION SYSTEM COSTS, \$/AC	IRRIGATION SYSTEMS				
	DITCH W/O PF AIA= 48	CENTER PIVOT AIA= 30	HANDMOVE AIA= 32	SIDE ROLL AIA= 32	AIA= 0
I. CAPITAL EXPENDITURES	D O L L A R S / A C R E				
A. TOTAL NETWORK COSTS	240	275	225	285	0
* ANNUAL COST	24	44	36	46	0
B. TOTAL WELL AND PUMP COSTS	155	304	247	247	0
* ANNUAL COST	21	43	35	35	0
C. UNUSED LAND COSTS	0	460	0	0	0
* ANNUAL COST	0	46	0	0	0
TOTAL ANNUAL CAPITAL EXPENDITURES	<u>45</u>	<u>133</u>	<u>71</u>	<u>81</u>	<u>0</u>
II. OPERATION AND MAINTENANCE					
A. LABOR	40	5	54	27	0
B. REPAIRS	2	12	14	13	0
C. POWER	11	13	12	12	0
D. IRRIGATION PREPARATION	20	0	0	0	0
TOTAL ANNUAL OPERATION AND MAINTENANCE	<u>73</u>	<u>30</u>	<u>80</u>	<u>52</u>	<u>0</u>
TOTAL ANNUAL SYSTEM COSTS	<u>118</u>	<u>163</u>	<u>151</u>	<u>133</u>	<u>0</u>

NOTE: ALL COSTS ARE BASED UPON 160 ACRES EXCEPT CENTER PIVOT WHICH IS BASED UPON 130 ACRES.  
AIA = AVERAGE INCHES APPLIED

APPENDIX D

ENERGY USE IN OTHER FARM APPLICATIONS



TABLE D1

HOME ELECTRICAL REQUIREMENTS  
(Per Residence)

STATE	KWH																								TOTAL
	Jan.		Feb.		March		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
ARIZONA	402	402	336	336	292	292	314	314	388	388	758	758	1043	1043	1064	1064	964	964	808	808	410	410	371	371	14300
CALIFORNIA: Sacramento Valley	489	489	430	430	399	399	358	358	328	328	399	399	474	474	468	468	432	432	330	330	365	365	421	421	9786
San Joaquin Delta	418	418	389	389	338	338	301	301	297	297	326	326	405	405	447	447	443	443	340	340	315	315	350	350	8738
Upper San Joaquin	423	423	390	390	341	341	303	303	324	324	350	350	456	456	461	461	437	437	316	316	302	302	352	352	8910
Lower San Joaquin	350	350	318	318	294	294	318	318	306	306	434	434	620	620	617	617	553	553	315	315	287	287	306	306	9436
Imperial	470	470	386	386	313	313	386	386	362	362	611	611	1029	1029	1069	1069	984	984	589	589	381	381	349	349	13858
Central Coast	315	315	278	278	268	268	250	250	237	237	244	244	228	228	214	214	225	225	224	224	257	257	282	282	6044
COLORADO	367	367	367	367	367	367	367	367	429	429	679	679	742	742	679	679	554	554	367	367	367	367	367	367	11306
HAWAII	352	352	352	352	337	337	337	337	322	322	322	322	322	322	322	322	337	337	337	337	352	352	352	352	8088

TABLE D1 (contd)

HOME ELECTRICAL REQUIREMENTS  
(Per Residence)

STATE	KWH																								TOTAL
	Jan.		Feb.		March		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
IDAHO	409	409	409	409	409	409	409	409	477	477	750	750	818	818	750	750	613	613	409	409	409	409	409	409	12542
KANSAS	375	375	375	375	375	375	375	375	438	438	688	688	750	750	688	688	563	563	375	375	375	375	375	375	11504
NEBRASKA	375	375	375	375	375	375	375	375	438	438	688	688	750	750	688	688	563	563	375	375	375	375	375	375	11504
NEW MEXICO	375	375	375	375	375	375	375	375	438	438	688	688	750	750	688	688	563	563	375	375	375	375	375	375	11504
OKLAHOMA	375	375	375	375	375	375	375	375	438	438	688	688	750	750	688	688	563	563	375	375	375	375	375	375	11504
OREGON	409	409	409	409	409	409	409	409	477	477	750	750	818	818	750	750	613	613	409	409	409	409	409	409	12542
TEXAS	375	375	375	375	375	375	375	375	438	438	688	688	750	750	688	688	563	563	375	375	375	375	375	375	11504
WASHINGTON	409	409	409	409	409	409	409	409	477	477	750	750	818	818	750	750	613	613	409	409	409	409	409	409	12542

TABLE D2

## HOME HEATING REQUIREMENTS - THERMAL

(Per Residence)

STATE	KWH Thermal																								TOTAL
	Jan.		Feb.		March		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
ARIZONA	1172	1172	879	879	733	733	586	586	440	440	440	440	440	440	293	293	440	440	293	293	440	440	733	733	13778
CALIFORNIA: Sacramento Valley	2395	2395	2152	2152	1544	1544	1082	1082	782	782	663	663	409	409	383	383	409	409	551	551	942	942	1615	1615	25845
San Joaquin Delta	2656	2656	2099	2099	1750	1750	1220	1220	841	841	695	695	548	548	440	440	440	440	548	548	1073	1073	1759	1759	28138
Upper San Joaquin	2425	2425	2051	2051	1465	1465	1078	1078	733	733	586	586	440	440	440	440	440	440	440	440	961	961	1598	1598	25314
Lower San Joaquin	2491	2491	2001	2001	1524	1524	1026	1026	733	733	586	586	440	440	440	440	440	440	440	440	938	938	1620	1620	25358
Imperial and Cochilla	1172	1172	879	879	733	733	586	586	440	440	440	440	440	440	293	293	440	440	293	293	440	440	733	733	13778
Central Coast	1988	1988	1399	1399	1402	1402	1340	1340	1047	1047	963	963	753	753	523	523	586	586	670	670	1046	1046	1319	1319	26072
COLORADO	3932	3932	3283	3283	2753	2753	1454	1454	770	770	394	394	325	325	342	342	530	530	1214	1214	2496	2496	3539	3539	42064
HAWAII	No information available																								

TABLE D2  
(contd)

HOME HEATING REQUIREMENTS - THERMAL  
(Per Residence)

STATE	KWH Thermal																								TOTAL
	Jan.		Feb.		March		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
IDAHO	2542	2542	2107	2107	1988	1988	1486	1486	1051	1051	682	682	457	457	470	470	721	721	1315	1315	1975	1975	2331	2331	34250
KANSAS	3932	3932	3283	3283	2753	2753	1454	1454	770	770	394	394	325	325	342	342	530	530	1214	1214	2496	2496	3539	3539	42064
NEBRASKA	3932	3932	3283	3283	2753	2753	1454	1454	770	770	394	394	325	325	342	342	530	530	1214	1214	2496	2496	3539	3539	42064
NEW MEXICO	2124	2124	1629	1629	1301	1301	624	624	354	354	325	325	325	325	325	325	333	333	551	551	1352	1352	1934	1934	22354
OKLAHOMA	2124	2124	1629	1629	1301	1301	624	624	354	354	325	325	325	325	325	325	333	333	551	551	1352	1352	1934	1934	22354
OREGON	2542	2542	2107	2107	1988	1988	1486	1486	1051	1051	682	682	457	457	470	470	721	721	1315	1315	1975	1975	2331	2331	34250
TEXAS	2124	2124	1629	1629	1301	1301	624	624	354	354	325	325	325	325	325	325	333	333	551	551	1352	1352	1934	1934	22354
WASHINGTON	2542	2542	2107	2107	1988	1988	1486	1486	1051	1051	682	682	457	457	470	470	721	721	1315	1315	1975	1975	2331	2331	34250

ccc

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF STOCKERS KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD				
JAN 1	3.25	.08	30.00	.02	2.00	0.00	0.00	0.00	
JAN 2	3.25	.08	30.00	.02	2.00	0.00	0.00	0.00	
FEB 1	3.25	.08	28.00	.02	2.00	0.00	0.00	0.00	
FEB 2	3.25	.08	27.00	.02	2.00	0.00	0.00	0.00	
MARCH 1	3.25	.08	26.00	.06	1.00	0.00	0.00	0.00	
MARCH 2	3.25	.08	26.00	.06	1.00	0.00	0.00	0.00	
APRIL 1	3.25	.07	26.00	.06	1.00	0.00	0.00	0.00	
APRIL 2	3.25	.07	26.00	.06	1.00	0.00	0.00	0.00	
MAY 1	3.25	.07	31.00	.06	1.00	0.00	0.00	0.00	
MAY 2	3.25	.07	32.00	.06	1.00	0.00	0.00	0.00	
JUNE 1	3.25	.07	41.00	0.00	1.00	0.00	0.00	0.00	
JUNE 2	3.25	.07	41.00	0.00	1.00	0.00	0.00	0.00	
JULY 1	3.25	.07	41.00	0.00	1.00	0.00	0.00	0.00	
JULY 2	3.25	.07	42.00	0.00	1.00	0.00	0.00	0.00	
AUG 1	3.25	.07	41.00	0.00	1.00	0.00	0.00	0.00	
AUG 2	3.25	.08	41.00	0.00	1.00	0.00	0.00	0.00	
SEPT 1	3.25	.08	36.00	0.00	1.00	0.00	0.00	0.00	
SEPT 2	3.25	.08	35.00	0.00	1.00	0.00	0.00	0.00	
OCT 1	3.25	.08	27.00	.02	1.00	0.00	0.00	0.00	
OCT 2	3.25	.08	27.00	.02	1.00	0.00	0.00	0.00	
NOV 1	3.25	.08	23.00	.02	1.00	0.00	0.00	0.00	
NOV 2	3.25	.08	23.00	.02	1.00	0.00	0.00	0.00	
DEC 1	3.25	.08	25.00	.02	2.00	0.00	0.00	0.00	
DEC 2	3.25	.08	25.00	.02	2.00	0.00	0.00	0.00	
TOTALS	76.00	1.83	750.00	.56	30.00	0.00	0.00	0.00	

REGION: ARIZONA

ENERGY REQUIREMENT kWh

TABLE D4

ENERGY: TOTAL THERMAL

OPERATION

TIME PERIOD	MILK COWS KJH/HEAD	BEEF FEEDLOT KWH/HEAD							
JAN : 1	18.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	18.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	16.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	16.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	15.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	15.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	14.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	17.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	17.00	16.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	356.00	390.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FOR: ARIZONA

ENERGY REQUIREMENT KWH

TABLE D5

ENERGY: TOTAL ELECTRIC

OPERATION

TIME PERIOD	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	2.50	135.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	135.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	2.50	134.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	134.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.50	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	2.50	116.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	116.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	2.50	125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.50	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	1.20	190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.20	190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	1.20	198.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.20	198.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.20	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.20	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	2.50	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	2.50	133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	2.50	137.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.50	137.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	52.20	3370.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: ARIZONA

ENERGY REQUIREMENT KWH

TABLE D6

ENERGY: TOTAL TREEMAL

OPERATION

TIME PERIOD	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	116.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	116.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	115.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	115.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	116.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	116.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	116.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	115.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	76.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	75.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	1.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	1.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	1.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	1.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	1.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	40.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	40.00	44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	77.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	77.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	150.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	150.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	1620.00	1031.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



ENERGY: TOTAL ELECTRIC

TIME		OPERATION							
PERIOD		BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD			
JAN	1	3.54	.34	18.00	.03	2.00	0.00	0.00	0.00
	2	3.54	.34	18.00	.03	2.00	0.00	0.00	0.00
FEB	1	3.54	.34	17.00	.03	2.00	0.00	0.00	0.00
	2	3.54	.34	17.00	.03	2.00	0.00	0.00	0.00
MARCH	1	3.54	.44	17.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.44	17.00	.03	1.00	0.00	0.00	0.00
APRIL	1	3.54	.26	17.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.26	17.00	.03	1.00	0.00	0.00	0.00
MAY	1	3.54	.13	18.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.13	18.00	.03	1.00	0.00	0.00	0.00
JUNE	1	3.54	.12	23.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.12	23.00	.03	1.00	0.00	0.00	0.00
JULY	1	3.54	.12	24.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.12	24.00	.03	1.00	0.00	0.00	0.00
AUG	1	3.54	.11	24.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.11	24.00	.03	1.00	0.00	0.00	0.00
SEPT	1	3.54	.14	18.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.14	18.00	.03	1.00	0.00	0.00	0.00
OCT	1	3.54	.19	18.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.19	18.00	.03	1.00	0.00	0.00	0.00
NOV	1	3.54	.28	16.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.28	16.00	.03	1.00	0.00	0.00	0.00
DEC	1	3.54	.40	17.00	.03	1.00	0.00	0.00	0.00
	2	3.54	.40	17.00	.03	1.00	0.00	0.00	0.00
TOTALS		34.96	5.74	454.00	.72	28.00	0.00	0.00	0.00

REGION: CALIFORNIA

ENERGY REQUIREMENT RUM

TABLE D8

ENERGY: TOTAL THERMAL

OPERATION

TIME PERIOD	BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD						
JAN : 1 :	8.00	.87	17.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	17.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1 :	8.00	.87	14.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	14.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1 :	8.00	.87	14.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	6.00	.87	14.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	13.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1 :	8.00	.87	16.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2 :	8.00	.87	16.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	192.00	20.88	330.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	2.60	140.00	7.00	20.00	0.00	0.00	0.00	0.00	
JAN : 2	2.60	140.00	7.00	21.00	0.00	0.00	0.00	0.00	
FEB : 1	1.90	140.00	6.00	22.00	0.00	0.00	0.00	0.00	
FEB : 2	1.90	140.00	6.00	22.00	0.00	0.00	0.00	0.00	
MARCH : 1	1.80	132.00	6.00	28.00	0.00	0.00	0.00	0.00	
MARCH : 2	1.70	132.00	6.00	28.00	0.00	0.00	0.00	0.00	
APRIL : 1	2.10	130.00	6.00	28.00	0.00	0.00	0.00	0.00	
APRIL : 2	2.10	130.00	6.00	28.00	0.00	0.00	0.00	0.00	
MAY : 1	1.90	160.00	7.00	24.00	0.00	0.00	0.00	0.00	
MAY : 2	2.00	160.00	8.00	24.00	0.00	0.00	0.00	0.00	
JUNE : 1	2.10	189.00	8.00	31.00	0.00	0.00	0.00	0.00	
JUNE : 2	2.20	189.00	9.00	31.00	0.00	0.00	0.00	0.00	
JULY : 1	3.10	237.00	10.00	43.00	0.00	0.00	0.00	0.00	
JULY : 2	3.10	237.00	10.00	42.00	0.00	0.00	0.00	0.00	
AUG : 1	3.20	247.00	9.00	14.00	0.00	0.00	0.00	0.00	
AUG : 2	3.10	247.00	9.00	14.00	0.00	0.00	0.00	0.00	
SEPT : 1	2.00	167.00	8.00	3.00	0.00	0.00	0.00	0.00	
SEPT : 2	2.00	166.00	7.00	3.00	0.00	0.00	0.00	0.00	
OCT : 1	2.80	145.00	7.00	2.00	0.00	0.00	0.00	0.00	
OCT : 2	2.90	145.00	6.00	2.00	0.00	0.00	0.00	0.00	
NOV : 1	1.50	145.00	6.00	3.00	0.00	0.00	0.00	0.00	
NOV : 2	1.50	146.00	7.00	3.00	0.00	0.00	0.00	0.00	
DEC : 1	2.00	146.00	7.00	9.00	0.00	0.00	0.00	0.00	
DEC : 2	2.00	145.00	7.00	10.00	0.00	0.00	0.00	0.00	
TOTALS	54.00	3955.00	175.00	455.00	0.00	0.00	0.00	0.00	

BOSTON: CALIFORNIA

ENERGY REQUIREMENT KWH

TABLE D10:

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	424.00	53.00	143.00	1200.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	424.00	53.00	142.00	1201.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	262.00	69.00	99.00	1109.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	262.00	69.00	99.00	1109.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	224.00	69.00	102.00	1330.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	224.00	69.00	102.00	1330.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	206.00	69.00	78.00	973.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	205.00	70.00	78.00	973.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	134.00	69.00	65.00	682.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	134.00	69.00	65.00	682.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	82.00	68.00	42.00	498.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	82.00	68.00	41.00	496.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	69.00	66.00	27.00	302.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	69.00	66.00	27.00	302.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	82.00	67.00	31.00	157.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	82.00	67.00	31.00	157.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	80.00	67.00	38.00	78.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	80.00	68.00	39.00	78.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	169.00	68.00	60.00	78.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	169.00	69.00	60.00	78.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	166.00	69.00	94.00	136.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	166.00	69.00	94.00	136.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	326.00	70.00	144.00	508.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	327.00	70.00	144.00	508.00	0.00	0.00	0.00	0.00	0.00
TOTALS	4448.00	1640.00	1845.00	14103.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD	CONFINE-MENT SWINE KWH/HEAD			
JAN : 1	2.00	.03	18.00	.01	1.25	1.50	0.00	0.00	
JAN : 2	2.00	.03	18.00	.01	1.25	1.50	0.00	0.00	
FEB : 1	2.00	.03	17.00	.01	1.25	1.50	0.00	0.00	
FEB : 2	2.00	.03	17.00	.01	1.25	1.50	0.00	0.00	
MARCH : 1	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
MARCH : 2	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
APRIL : 1	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
APRIL : 2	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
MAY : 1	2.00	.03	17.00	.02	.65	1.50	0.00	0.00	
MAY : 2	2.00	.03	17.00	.02	.65	1.50	0.00	0.00	
JUNE : 1	2.00	.03	17.00	0.00	0.00	1.50	0.00	0.00	
JUNE : 2	2.00	.03	17.00	0.00	0.00	1.50	0.00	0.00	
JULY : 1	2.00	.03	18.00	0.00	0.00	1.50	0.00	0.00	
JULY : 2	2.00	.03	18.00	0.00	0.00	1.50	0.00	0.00	
AUG : 1	2.00	.03	18.00	0.00	0.00	1.50	0.00	0.00	
AUG : 2	2.00	.03	18.00	0.00	0.00	1.50	0.00	0.00	
SEPT : 1	2.00	.03	16.00	0.00	.60	1.50	0.00	0.00	
SEPT : 2	2.00	.03	16.00	0.00	.60	1.50	0.00	0.00	
OCT : 1	3.00	.03	16.00	.01	.60	1.50	0.00	0.00	
OCT : 2	3.00	.03	16.00	.01	.60	1.50	0.00	0.00	
NOV : 1	3.00	.03	15.00	.01	.60	1.50	0.00	0.00	
NOV : 2	3.00	.03	15.00	.01	.60	1.50	0.00	0.00	
DEC : 1	2.00	.03	17.00	.01	1.25	1.50	0.00	0.00	
DEC : 2	2.00	.03	17.00	.01	1.25	1.50	0.00	0.00	
TOTALS	52.00	.72	402.00	.34	15.00	36.00	0.00	0.00	

REGION: CONFINED

ENERGY REQUIREMENT KWH

TABLE D12:

ENERGY: TOTAL INTERNAL

TIME PERIOD	OPERATION								
	COW CONSUMPTION KWH/HEAD	BEEF FEEDLOT KWH/HEAD	CONFINEMENT SHIM KWH/HEAD						
JAN : 1	17.00	9.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	17.00	9.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	15.00	9.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	15.00	9.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	15.00	9.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	15.00	9.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	13.00	9.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	13.00	9.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	13.00	9.00	.50	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	13.00	9.00	.40	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	13.00	9.00	.10	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	13.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	13.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	13.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	13.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	13.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	13.00	9.00	.20	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	13.00	9.00	.30	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	13.00	9.00	.90	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	13.00	9.00	.90	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	13.00	9.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	13.00	9.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	16.00	9.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	16.00	9.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	334.00	216.00	36.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY TURKEYS KWH/1000						
JAN : 1	1.50	121.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.50	121.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	2.20	113.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	2.20	110.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.20	121.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	2.20	121.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	2.90	119.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	3.00	119.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	2.70	132.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	2.70	133.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.50	148.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.50	148.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.00	192.00	34.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.00	193.00	34.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	2.00	205.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	2.00	204.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.50	148.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	1.50	148.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.70	133.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	1.70	132.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.50	123.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	1.50	122.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.70	123.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	1.70	123.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	48.90	3365.00	379.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION: COLUMBIA

ENERGY REQUIREMENT LHM

TAB: 014

SECTION: TOTAL FLOCKS

OPERATION

PERIOD	POULTRY BUILDS KWH/1000	POULTRY EGGS KWH/1000	FOURTRY PERKAYS KWH/1000						
JAN : 1	275.00	45.00	1142.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	275.00	45.00	1142.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	298.00	45.00	1019.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	298.00	45.00	1019.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	334.00	45.00	1307.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	334.00	45.00	1307.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	298.00	45.00	1105.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	298.00	45.00	1105.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	168.00	45.00	571.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	168.00	45.00	570.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	84.00	45.00	355.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	84.00	45.00	355.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	39.00	45.00	243.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	39.00	45.00	243.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	49.00	45.00	58.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	49.00	45.00	58.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	61.00	45.00	47.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	61.00	45.00	46.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	143.00	45.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	143.00	45.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	204.00	45.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	205.00	45.00	146.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	284.00	45.00	530.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	284.00	45.00	531.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	4476.00	1080.00	13374.00	0.00	0.00	0.00	0.00	0.00	0.00



ISLAND: HAWAII

ENERGY REQUIREMENT KWH

TABLE D15

ENERGY: POPAL ELECTRIC

TIME PERIOD	OPERATION									
	MILK COWS KWH/HEAD	BEEF FEEDLOT KWH/HEAD	BEEF STOCKERS KWH/HEAD	SWINE PRODUCED KWH/HEAD						
JAN : 1	18.00	4.00	.07	1.40	0.00	0.00	0.00	0.00	0.00	
: 2	18.00	4.00	.07	1.40	0.00	0.00	0.00	0.00	0.00	
FEB : 1	17.00	3.00	.07	1.40	0.00	0.00	0.00	0.00	0.00	
: 2	17.00	3.00	.07	1.40	0.00	0.00	0.00	0.00	0.00	
MARCH : 1	17.00	3.00	.07	.29	0.00	0.00	0.00	0.00	0.00	
: 2	17.00	3.00	.07	.29	0.00	0.00	0.00	0.00	0.00	
APRIL : 1	18.00	3.00	.07	.48	0.00	0.00	0.00	0.00	0.00	
: 2	18.00	3.00	.07	.48	0.00	0.00	0.00	0.00	0.00	
MAY : 1	19.00	3.00	.07	.55	0.00	0.00	0.00	0.00	0.00	
: 2	19.00	3.00	.07	.55	0.00	0.00	0.00	0.00	0.00	
JUNE : 1	19.00	3.00	.06	.50	0.00	0.00	0.00	0.00	0.00	
: 2	19.00	3.00	.06	.50	0.00	0.00	0.00	0.00	0.00	
JULY : 1	20.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
: 2	20.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
AUG : 1	20.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
: 2	20.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
SEPT : 1	18.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
: 2	18.00	3.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
OCT : 1	18.00	4.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
: 2	18.00	4.00	.07	.50	0.00	0.00	0.00	0.00	0.00	
NOV : 1	16.00	3.00	.07	.34	0.00	0.00	0.00	0.00	0.00	
: 2	16.00	3.00	.07	.34	0.00	0.00	0.00	0.00	0.00	
DEC : 1	17.00	4.00	.07	1.09	0.00	0.00	0.00	0.00	0.00	
: 2	17.00	4.00	.07	1.09	0.00	0.00	0.00	0.00	0.00	
TOTALS	434.00	78.00	1.66	16.10	0.00	0.00	0.00	0.00	0.00	

REGION: HAWAII

ENERGY REQUIREMENT AND

TABLE D16

ENERGY: TOTAL THERMAL

TIME PERIOD		OPERATION								
		MILK CONS KWH/HEAD								
JAN	1	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB	1	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH	1	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL	1	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	1	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE	1	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY	1	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG	1	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT	1	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT	1	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	1	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC	1	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS		342.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: HAWAII

ENERGY REQUIREMENT AND

TABLE D17

ENERGY: TOTAL ELECTRIC

OPERATION

TIME PERIOD	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.40	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	61.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	1.40	63.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	65.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	3.50	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	3.50	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	3.50	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	3.50	70.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.10	77.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.10	78.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.10	98.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.10	99.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	2.10	111.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	2.10	111.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.40	83.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	83.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.40	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.40	62.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	46.20	1773.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: HAWAII		ENERGY REQUIREMENT KWH								TABLE D18
ENERGY: TOTAL THERMAL										
TIME PERIOD		OPERATION								
		POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN	1	19.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
JAN	2	20.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
FEB	1	39.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
FEB	2	39.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
MARCH	1	39.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
MARCH	2	39.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
APRIL	1	20.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
APRIL	2	20.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
MAY	1	19.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
MAY	2	19.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
JUNE	1	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
JUNE	2	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
JULY	1	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
JULY	2	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
AUG	1	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
AUG	2	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
SEPT	1	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
SEPT	2	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
OCT	1	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
OCT	2	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	
NOV	1	0.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
NOV	2	0.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
DEC	1	19.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
DEC	2	20.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTALS		312.00	856.00	0.00	0.00	0.00	0.00	0.00	0.00	

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD	SWINE PRODUCED KWH/HEAD					
JAN : 1	9.00	.70	20.00	1.25	0.00	0.00	0.00	0.00	0.00
JAN : 2	9.00	.70	20.00	1.25	0.00	0.00	0.00	0.00	0.00
FEB : 1	9.00	.70	19.00	1.25	0.00	0.00	0.00	0.00	0.00
FEB : 2	9.00	.70	19.00	1.25	0.00	0.00	0.00	0.00	0.00
MARCH : 1	8.00	.70	18.00	.65	0.00	0.00	0.00	0.00	0.00
MARCH : 2	8.00	.70	18.00	.65	0.00	0.00	0.00	0.00	0.00
APRIL : 1	8.00	.50	17.00	.65	0.00	0.00	0.00	0.00	0.00
APRIL : 2	8.00	.50	17.00	.65	0.00	0.00	0.00	0.00	0.00
MAY : 1	8.00	.30	18.00	.65	0.00	0.00	0.00	0.00	0.00
MAY : 2	8.00	.30	18.00	.65	0.00	0.00	0.00	0.00	0.00
JUNE : 1	8.00	.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	8.00	.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	8.00	.30	20.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	8.00	.30	20.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	8.00	.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	8.00	.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	7.00	.30	17.00	.60	0.00	0.00	0.00	0.00	0.00
SEPT : 2	7.00	.30	17.00	.60	0.00	0.00	0.00	0.00	0.00
OCT : 1	8.00	.40	17.00	.60	0.00	0.00	0.00	0.00	0.00
OCT : 2	8.00	.40	17.00	.60	0.00	0.00	0.00	0.00	0.00
NOV : 1	8.00	.50	17.00	.60	0.00	0.00	0.00	0.00	0.00
NOV : 2	8.00	.50	17.00	.60	0.00	0.00	0.00	0.00	0.00
DEC : 1	8.00	.70	19.00	1.25	0.00	0.00	0.00	0.00	0.00
DEC : 2	8.00	.70	19.00	1.25	0.00	0.00	0.00	0.00	0.00
TOTALS	194.00	11.40	440.00	15.00	0.00	0.00	0.00	0.00	0.00

REGION: ISARD

ENERGY REQUIREMENT RMB

TABLE D20

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD						
JAN : 1	.30	.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	.30	.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	.30	.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	.30	.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	.30	.70	12.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	.30	.70	12.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	.20	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	.20	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	.10	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	.10	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	.10	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	.10	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	.10	.70	10.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	.20	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	.20	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	.20	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	.20	.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	.30	.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	.30	.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	4.60	16.80	276.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN 1	1.40	111.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN 2	1.40	111.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB 1	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB 2	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH 1	2.00	106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH 2	2.00	106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL 1	2.70	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL 2	2.70	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY 1	3.40	113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY 2	3.40	113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE 1	1.40	126.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE 2	1.40	127.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY 1	1.40	165.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY 2	1.40	165.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG 1	1.40	166.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG 2	1.40	166.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT 1	1.40	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT 2	1.40	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT 1	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT 2	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV 1	1.40	112.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV 2	1.40	112.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC 1	1.40	113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC 2	1.40	113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	41.40	2907.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: IDAHO

ENERGY REQUIREMENT KWH

TABLE D22

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	243.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	243.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	243.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	243.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	150.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	150.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	75.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	75.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	38.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	37.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	37.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	37.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	56.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	56.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	131.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	131.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	187.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	187.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	262.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	3891.00	408.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BELF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD	CONFINEMENT SWINE KWH/HEAD			
JAN : 1	2.33	.03	15.00	.03	.60	1.50	0.00	0.00	
: 2	2.33	.03	15.00	.03	.60	1.50	0.00	0.00	
PEB : 1	2.33	.03	13.00	.03	1.00	1.50	0.00	0.00	
: 2	2.33	.03	13.00	.03	1.00	1.50	0.00	0.00	
MARCH : 1	2.33	.03	15.00	.03	.80	1.50	0.00	0.00	
: 2	2.33	.03	15.00	.03	.80	1.50	0.00	0.00	
APRIL : 1	2.33	.03	15.00	.03	.70	1.50	0.00	0.00	
: 2	2.33	.03	15.00	.03	.70	1.50	0.00	0.00	
MAY : 1	2.33	.03	16.00	.03	.30	1.50	0.00	0.00	
: 2	2.33	.03	16.00	.03	.30	1.50	0.00	0.00	
JUNE : 1	2.33	.03	16.00	.03	.02	1.50	0.00	0.00	
: 2	2.33	.03	16.00	.03	.02	1.50	0.00	0.00	
JULY : 1	2.33	.03	16.00	.03	.02	1.50	0.00	0.00	
: 2	2.33	.03	16.00	.03	.02	1.50	0.00	0.00	
AUG : 1	2.33	.03	16.00	.03	.50	1.50	0.00	0.00	
: 2	2.33	.03	16.00	.03	.50	1.50	0.00	0.00	
SEPT : 1	2.33	.03	17.00	.03	.70	1.50	0.00	0.00	
: 2	2.33	.03	17.00	.03	.70	1.50	0.00	0.00	
OCT : 1	2.33	.03	14.00	.03	.70	1.50	0.00	0.00	
: 2	2.33	.03	14.00	.03	.70	1.50	0.00	0.00	
NOV : 1	2.33	.03	14.00	.03	.20	1.50	0.00	0.00	
: 2	2.33	.03	14.00	.03	.20	1.50	0.00	0.00	
DEC : 1	2.33	.03	15.00	.03	.70	1.50	0.00	0.00	
: 2	2.33	.03	15.00	.03	.70	1.50	0.00	0.00	
TOTALS	55.92	.72	364.00	.72	12.40	36.00	0.00	0.00	

REGION: KANSAS

ENERGY REQUIREMENT KWH

TABLE D24

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	MILK COWS KWH/HEAD	BEEF FLEEDLOT KWH/HEAD	CONFINEMENT SWINE KWH/HEAD						
JAN : 1	16.00	12.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	16.00	12.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	14.00	12.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	14.00	12.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	14.00	12.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	14.00	12.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	11.00	12.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	11.00	12.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	12.00	12.00	.50	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	12.00	12.00	.40	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	11.00	12.00	.10	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	11.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	11.00	12.00	.20	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	11.00	12.00	.30	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	12.00	12.00	.90	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	12.00	12.00	.90	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	12.00	12.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	12.00	12.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	15.00	12.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	15.00	12.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	304.00	288.00	35.90	0.00	0.00	0.00	0.00	0.00	0.00

REGION: KANSAS

ENERGY REQUIREMENT KWH

TABLE D25:

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1 :	2.00	95.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	95.00	0.00	16.00	0.00	0.00	0.00	0.00	0.00
FEB : 1 :	1.00	92.00	2.00	26.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	92.00	2.00	27.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1 :	3.00	89.00	21.00	29.00	0.00	0.00	0.00	0.00	0.00
: 2 :	3.00	89.00	21.00	29.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1 :	2.00	88.00	32.00	25.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	88.00	32.00	25.00	0.00	0.00	0.00	0.00	0.00
MAY : 1 :	3.00	97.00	28.00	24.00	0.00	0.00	0.00	0.00	0.00
: 2 :	3.00	97.00	27.00	24.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1 :	2.00	105.00	12.00	31.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	106.00	11.00	31.00	0.00	0.00	0.00	0.00	0.00
JULY : 1 :	2.00	137.00	1.00	29.00	0.00	0.00	0.00	0.00	0.00
: 2 :	1.00	137.00	1.00	28.00	0.00	0.00	0.00	0.00	0.00
AUG : 1 :	1.00	140.00	2.00	9.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	139.00	2.00	9.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1 :	2.00	108.00	1.00	5.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	108.00	1.00	4.00	0.00	0.00	0.00	0.00	0.00
OCT : 1 :	2.00	97.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	97.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00
NOV : 1 :	1.00	98.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00
: 2 :	1.00	98.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00
DEC : 1 :	1.00	97.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
: 2 :	2.00	96.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
TOTALS	46.00	2485.00	196.00	412.00	0.00	0.00	0.00	0.00	0.00

REGION: KANSAS

ENERGY REQUIREMENT KWH

TABLE D26

ENERGY: TOTAL THERMAL

OFFFATION

TIME PERIOD	OFFFATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1 :	265.00	15.70	0.00	653.00	0.00	0.00	0.00	0.00	0.00
JAN : 2 :	265.00	15.70	0.00	652.00	0.00	0.00	0.00	0.00	0.00
FEB : 1 :	204.00	15.70	37.00	775.00	0.00	0.00	0.00	0.00	0.00
FEB : 2 :	204.00	15.70	37.00	775.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1 :	354.00	15.70	242.00	897.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2 :	354.00	15.70	242.00	897.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1 :	133.00	15.70	205.00	653.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2 :	133.00	15.70	205.00	652.00	0.00	0.00	0.00	0.00	0.00
MAY : 1 :	107.00	15.70	112.00	367.00	0.00	0.00	0.00	0.00	0.00
MAY : 2 :	107.00	15.70	112.00	367.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1 :	35.00	15.70	19.00	204.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2 :	35.00	15.70	18.00	204.00	0.00	0.00	0.00	0.00	0.00
JULY : 1 :	13.00	15.70	0.00	82.00	0.00	0.00	0.00	0.00	0.00
JULY : 2 :	13.00	15.70	0.00	82.00	0.00	0.00	0.00	0.00	0.00
AUG : 1 :	17.00	15.70	0.00	81.00	0.00	0.00	0.00	0.00	0.00
AUG : 2 :	17.00	15.70	0.00	81.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1 :	44.00	15.70	0.00	41.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2 :	44.00	15.70	0.00	41.00	0.00	0.00	0.00	0.00	0.00
OCT : 1 :	89.00	15.70	0.00	41.00	0.00	0.00	0.00	0.00	0.00
OCT : 2 :	89.00	15.70	0.00	40.00	0.00	0.00	0.00	0.00	0.00
NOV : 1 :	106.00	15.70	0.00	122.00	0.00	0.00	0.00	0.00	0.00
NOV : 2 :	106.00	15.70	0.00	123.00	0.00	0.00	0.00	0.00	0.00
DEC : 1 :	213.00	15.70	0.00	244.00	0.00	0.00	0.00	0.00	0.00
DEC : 2 :	213.00	15.70	0.00	245.00	0.00	0.00	0.00	0.00	0.00
TOTALS	3160.00	376.80	1229.00	8319.00	0.00	0.00	0.00	0.00	0.00

REGION: OKLAHOMA

ENERGY REQUIREMENT KWH

TABLE D27

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION									
	MILK COWS KWH/HEAD	SHEEP KUH/HEAD	BEEF FEEDLOT KWH/HEAD	BEEF STOCKERS KWH/HEAD	SWINE PRODUCED KWH/HEAD					
JAN 1	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
JAN 2	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
FEB 1	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
FEB 2	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
MARCH 1	15.00	.01	2.33	.07	.30	0.00	0.00	0.00	0.00	
MARCH 2	15.00	.01	2.33	.07	.30	0.00	0.00	0.00	0.00	
APRIL 1	15.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
APRIL 2	15.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
MAY 1	16.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
MAY 2	16.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
JUNE 1	17.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
JUNE 2	17.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
JULY 1	18.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
JULY 2	18.00	.01	2.33	.06	.50	0.00	0.00	0.00	0.00	
AUG 1	17.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
AUG 2	17.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
SEPT 1	16.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
SEPT 2	16.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
OCT 1	15.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
OCT 2	15.00	.01	2.33	.07	.50	0.00	0.00	0.00	0.00	
NOV 1	14.00	.01	2.33	.07	.30	0.00	0.00	0.00	0.00	
NOV 2	14.00	.01	2.33	.07	.30	0.00	0.00	0.00	0.00	
DEC 1	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
DEC 2	15.00	.01	2.33	.07	1.00	0.00	0.00	0.00	0.00	
TOTALS	376.00	.24	55.92	1.60	14.20	0.00	0.00	0.00	0.00	

REGION: OKLAHOMA

ENERGY REQUIREMENT KWH

TABLE D28

ENERGY: TOTAL THERMAL

TIME		OPERATION								
PERIOD		MILK COWS KWH/HEAD	BEEF FEEDLOT KWH/HEAD							
JAN	1	17.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	17.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB	1	14.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH	1	14.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL	1	17.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	17.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT	1	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	1	13.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC	1	15.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	15.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS		324.00	288.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRICAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	1.00	79.00	6.90	28.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.00	79.00	6.90	28.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.80	79.00	5.80	32.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	1.80	79.00	5.80	32.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	3.60	78.00	6.30	38.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	3.60	78.00	6.30	38.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	5.40	74.00	5.80	32.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	5.40	74.00	5.80	32.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	4.40	90.00	6.90	31.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	4.40	90.00	6.90	31.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.80	105.00	7.80	39.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.80	105.00	7.80	39.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.40	146.00	9.30	42.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.40	146.00	9.30	43.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	1.40	151.00	8.70	18.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	1.40	151.00	8.70	18.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.60	98.00	7.00	8.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	1.60	98.00	7.00	8.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	0.80	89.00	5.90	10.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	0.80	89.00	5.90	10.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	0.00	88.00	3.80	11.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	0.00	88.00	3.80	11.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	0.00	84.00	6.20	14.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	0.00	85.00	6.20	15.00	0.00	0.00	0.00	0.00	0.00
TOTALS	50.40	2323.00	160.80	608.00	0.00	0.00	0.00	0.00	0.00

REGION: OKLAHOMA

ENERGY REQUIREMENT KWH

TABLE D30

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	201.00	69.00	305.00	1003.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	201.00	69.00	305.00	1003.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	383.00	69.00	226.00	945.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	383.00	69.00	226.00	945.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	612.00	69.00	218.00	917.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	612.00	69.00	218.00	917.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	442.00	68.00	94.00	723.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	442.00	68.00	94.00	723.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	205.00	69.00	64.00	577.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	205.00	69.00	64.00	577.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	42.00	67.00	23.00	151.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	42.00	67.00	23.00	151.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	12.00	68.00	10.00	90.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	12.00	68.00	10.00	90.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	5.00	70.00	9.00	64.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	5.00	70.00	9.00	64.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	41.00	70.00	37.00	111.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	41.00	70.00	37.00	111.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	55.00	73.00	76.00	208.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	55.00	73.00	76.00	208.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	29.00	73.00	149.00	299.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	29.00	73.00	149.00	299.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	16.00	71.00	252.00	524.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	16.00	71.00	252.00	524.00	0.00	0.00	0.00	0.00	0.00
TOTALS	4096.00	1672.00	2926.00	11224.00	0.00	0.00	0.00	0.00	0.00



ENERGY REQUIREMENT KWH

ENERGY: TOTAL ELECTRICAL

OPERATION

TIME PERIOD	BEEF FEEDLOT KWH/HEAD	SWINE PRODUCED KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	BEE COW-CALF KWH/HEAD				
JAN : 1	9.00	1.25	21.00	.06	.90	0.00	0.00	0.00	0.00
: 2	8.00	1.25	20.00	.06	.90	0.00	0.00	0.00	0.00
FEB : 1	8.00	1.25	20.00	.06	.90	0.00	0.00	0.00	0.00
: 2	8.00	1.25	20.00	.06	.90	0.00	0.00	0.00	0.00
MARCH : 1	8.00	.65	20.00	.06	1.10	0.00	0.00	0.00	0.00
: 2	8.00	.65	19.00	.06	1.10	0.00	0.00	0.00	0.00
APRIL : 1	9.00	.65	19.00	.06	.70	0.00	0.00	0.00	0.00
: 2	10.00	.65	18.00	.06	.70	0.00	0.00	0.00	0.00
MAY : 1	9.00	.65	19.00	.06	.40	0.00	0.00	0.00	0.00
: 2	9.00	.65	20.00	.06	.30	0.00	0.00	0.00	0.00
JUNE : 1	9.00	0.00	20.00	.06	.30	0.00	0.00	0.00	0.00
: 2	9.00	0.00	21.00	.06	.30	0.00	0.00	0.00	0.00
JULY : 1	11.00	0.00	21.00	.06	.30	0.00	0.00	0.00	0.00
: 2	11.00	0.00	21.00	.06	.30	0.00	0.00	0.00	0.00
AUG : 1	11.00	0.00	21.00	.06	.20	0.00	0.00	0.00	0.00
: 2	10.00	0.00	21.00	.06	.20	0.00	0.00	0.00	0.00
SEPT : 1	10.00	.60	19.00	.06	.30	0.00	0.00	0.00	0.00
: 2	10.00	.60	18.00	.06	.30	0.00	0.00	0.00	0.00
OCT : 1	10.00	.60	18.00	.06	.50	0.00	0.00	0.00	0.00
: 2	10.00	.60	18.00	.06	.50	0.00	0.00	0.00	0.00
NOV : 1	10.00	.60	18.00	.06	.60	0.00	0.00	0.00	0.00
: 2	10.00	.60	19.00	.06	.60	0.00	0.00	0.00	0.00
DEC : 1	10.00	1.25	20.00	.06	.90	0.00	0.00	0.00	0.00
: 2	9.00	1.25	20.00	.06	.90	0.00	0.00	0.00	0.00
TOTALS	226.00	15.00	471.00	1.44	14.10	0.00	0.00	0.00	0.00

REGION: OREGON

ENERGY REQUIREMENT KWH

TABLE D32

ENERGY: TOTAL THERMAL

OPERATION

TIME PERIOD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD							
JAN : 1	1.70	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	1.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.10	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
: 2	1.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	40.20	289.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRICAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKLYS KWH/1000					
JAN : 1	1.80	128.00	7.60	13.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.80	128.00	7.60	13.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	2.50	124.00	6.70	14.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	2.50	124.00	6.70	14.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.30	115.00	9.80	19.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	2.30	115.00	9.90	19.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	1.50	113.00	9.00	19.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	1.50	113.00	9.00	18.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	1.50	143.00	10.00	16.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	1.50	143.00	10.00	16.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.30	172.00	10.00	21.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.30	172.00	10.00	21.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.00	225.00	9.60	28.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.00	225.00	9.60	28.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	3.00	232.00	9.90	10.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	3.00	231.00	9.90	9.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	.30	154.00	8.00	2.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	.30	154.00	8.00	1.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	2.00	132.00	7.00	1.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	2.00	132.00	7.00	1.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.80	130.00	7.00	1.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	1.80	130.00	7.00	2.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.30	127.00	8.00	6.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	1.30	127.00	8.00	6.00	0.00	0.00	0.00	0.00	0.00
TOTALS	44.60	3589.00	205.30	298.00	0.00	0.00	0.00	0.00	0.00

REGION: OREGON

ENERGY REQUIREMENT KWH

TABLE D34

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	190.00	36.00	87.00	791.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	190.00	36.00	87.00	791.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	190.00	36.00	65.00	731.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	190.00	36.00	65.00	731.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	197.00	36.00	59.00	863.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	197.00	36.00	59.00	863.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	98.00	36.00	77.00	635.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	98.00	36.00	77.00	635.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	84.00	36.00	61.00	443.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	84.00	36.00	61.00	443.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	70.00	36.00	43.00	324.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	70.00	36.00	43.00	324.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	56.00	36.00	32.00	204.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	56.00	36.00	32.00	204.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	70.00	36.00	32.00	96.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	70.00	36.00	32.00	96.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	77.00	36.00	36.00	48.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	77.00	36.00	36.00	48.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	112.00	36.00	47.00	48.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	112.00	36.00	47.00	48.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	112.00	36.00	68.00	84.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	112.00	36.00	68.00	84.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	119.00	36.00	89.00	324.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	119.00	36.00	89.00	324.00	0.00	0.00	0.00	0.00	0.00
TOTALS	2750.00	864.00	1472.00	9182.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF COR-CALF KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD	CONFINEMENT SWINE KWH/HEAD			
JAN 1	2.00	.03	16.00	.05	1.25	1.50	0.00	0.00	
JAN 2	2.00	.03	16.00	.05	1.25	1.50	0.00	0.00	
FEB 1	2.00	.03	15.00	.05	1.25	1.50	0.00	0.00	
FEB 2	2.00	.03	15.00	.05	1.25	1.50	0.00	0.00	
MARCH 1	2.00	.03	15.00	.05	.65	1.50	0.00	0.00	
MARCH 2	2.00	.03	15.00	.05	.65	1.50	0.00	0.00	
APRIL 1	2.00	.03	15.00	.05	.65	1.50	0.00	0.00	
APRIL 2	2.00	.03	15.00	.05	.65	1.50	0.00	0.00	
MAY 1	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
MAY 2	2.00	.03	16.00	.05	.65	1.50	0.00	0.00	
JUNE 1	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
JUNE 2	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
JULY 1	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
JULY 2	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
AUG 1	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
AUG 2	2.00	.03	17.00	.05	0.00	1.50	0.00	0.00	
SEPT 1	2.00	.03	15.00	.05	.60	1.50	0.00	0.00	
SEPT 2	2.00	.03	15.00	.05	.60	1.50	0.00	0.00	
OCT 1	3.00	.03	15.00	.05	.60	1.50	0.00	0.00	
OCT 2	3.00	.03	15.00	.05	.60	1.50	0.00	0.00	
NOV 1	3.00	.03	14.00	.05	.60	1.50	0.00	0.00	
NOV 2	3.00	.03	14.00	.05	.60	1.50	0.00	0.00	
DEC 1	3.00	.03	15.00	.05	1.25	1.50	0.00	0.00	
DEC 2	3.00	.03	15.00	.05	1.25	1.50	0.00	0.00	
TOTALS	54.00	.72	374.00	1.20	15.00	36.00	0.00	0.00	

REGION: NEBRASKA

ENERGY REQUIREMENT KWH

TABLE D36

ENERGY: TOTAL THERMAL

TIME PERIOD		MILK COWS KWH/HEAD	CONFINEMENT SWINE KWH/HEAD	OPERATION						
JAN	1	31.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	31.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB	1	30.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	30.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH	1	22.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	22.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL	1	14.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	15.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	1	10.00	.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	10.00	.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE	1	9.00	.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY	1	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG	1	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT	1	9.00	.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	9.00	.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT	1	12.00	.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	1	19.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	19.00	2.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC	1	26.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	27.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS		400.00	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

LIBRARY: TOTAL ELECTRICAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	1.90	97.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.90	97.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	2.30	93.00	3.00	23.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	2.30	92.00	4.00	23.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.90	90.00	13.00	29.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	2.90	89.00	14.00	29.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	4.40	86.00	31.00	24.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	4.40	86.00	31.00	24.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	5.30	94.00	37.00	26.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	5.30	94.00	37.00	26.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	3.20	102.00	16.00	32.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	3.20	102.00	16.00	31.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.30	131.00	3.00	30.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.30	131.00	2.00	29.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	3.40	140.00	2.00	10.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	3.40	140.00	2.00	10.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.50	103.00	1.00	3.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	1.50	103.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.50	94.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	1.50	94.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	.40	97.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	.40	97.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	0.00	101.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	0.00	101.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00
TOTALS	58.20	2454.00	212.00	405.00	0.00	0.00	0.00	0.00	0.00

REGION: NEBRASKA

ENERGY REQUIREMENT KWH

TABLE D38

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKFYS KWH/1000					
JAN : 1	308.00	28.00	0.00	874.00	0.00	0.00	0.00	0.00	0.00
: 2	308.00	28.00	0.00	874.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	291.00	23.00	56.00	1054.00	0.00	0.00	0.00	0.00	0.00
: 2	290.00	27.00	57.00	1054.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	354.00	25.00	157.00	1157.00	0.00	0.00	0.00	0.00	0.00
: 2	355.00	25.00	157.00	1157.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	326.00	24.00	245.00	874.00	0.00	0.00	0.00	0.00	0.00
: 2	325.00	24.00	245.00	874.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	212.00	22.00	164.00	566.00	0.00	0.00	0.00	0.00	0.00
: 2	212.00	21.00	164.00	565.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	64.00	18.00	38.00	283.00	0.00	0.00	0.00	0.00	0.00
: 2	64.00	18.00	38.00	283.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	29.00	17.00	0.00	103.00	0.00	0.00	0.00	0.00	0.00
: 2	29.00	17.00	0.00	103.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	41.00	17.00	0.00	51.00	0.00	0.00	0.00	0.00	0.00
: 2	41.00	17.00	0.00	51.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	41.00	18.00	0.00	51.00	0.00	0.00	0.00	0.00	0.00
: 2	41.00	18.00	0.00	51.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	26.00	18.00	0.00	103.00	0.00	0.00	0.00	0.00	0.00
: 2	26.00	17.00	0.00	103.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	29.00	17.00	0.00	206.00	0.00	0.00	0.00	0.00	0.00
: 2	29.00	17.00	0.00	206.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	11.00	21.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00
: 2	12.00	21.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00
TOTALS	3464.00	503.00	1321.00	11363.00	0.00	0.00	0.00	0.00	0.00



ENERGY: TOTAL ELECTRIC

TIME PERIOD	OPERATION									
	BEEF FEEDLOT KWH/HEAD	BEEF STOCKERS KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD					
JAN 1	2.70	.07	18.00	.01	3.00	0.00	0.00	0.00		
JAN 2	2.70	.07	18.00	.01	3.00	0.00	0.00	0.00		
FEB 1	2.70	.07	16.00	.01	3.00	0.00	0.00	0.00		
FEB 2	2.70	.07	16.00	.01	3.00	0.00	0.00	0.00		
MARCH 1	2.70	.07	16.00	.01	.89	0.00	0.00	0.00		
MARCH 2	2.70	.07	16.00	.01	.89	0.00	0.00	0.00		
APRIL 1	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
APRIL 2	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
MAY 1	2.70	.07	19.00	.01	1.00	0.00	0.00	0.00		
MAY 2	2.70	.07	19.00	.01	1.00	0.00	0.00	0.00		
JUNE 1	2.70	.06	19.00	.01	1.00	0.00	0.00	0.00		
JUNE 2	2.70	.06	19.00	.01	1.00	0.00	0.00	0.00		
JULY 1	2.70	.07	20.00	.01	1.00	0.00	0.00	0.00		
JULY 2	2.70	.07	20.00	.01	1.00	0.00	0.00	0.00		
AUG 1	2.70	.07	20.00	.01	1.00	0.00	0.00	0.00		
AUG 2	2.70	.07	20.00	.01	1.00	0.00	0.00	0.00		
SEPT 1	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
SEPT 2	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
OCT 1	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
OCT 2	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
NOV 1	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
NOV 2	2.70	.07	18.00	.01	1.00	0.00	0.00	0.00		
DEC 1	2.70	.07	17.00	.01	3.00	0.00	0.00	0.00		
DEC 2	2.70	.07	17.00	.01	3.00	0.00	0.00	0.00		
TOTALS	64.80	1.66	434.00	.24	35.78	0.00	0.00	0.00		

REGION: NEW MEXICO

ENERGY REQUIREMENT KWH

TABLE D40

ENERGY: TOTAL THERMAL

OPERATION

TIME PERIOD	BEEF FEEDLOT KWH/HEAD	MILK CONS KWH/HEAD							
JAN : 1	13.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	13.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	13.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	13.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	13.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	13.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	13.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	13.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	13.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	312.00	380.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STOR: NEW MEXICO

ENERGY REQUIREMENT KWH

TABLE D41

ENERGY: TOTAL ELECTRICAL

OPERATION

TIME PERIOD	POULTRY PULLFTS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	1.40	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.40	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.40	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	1.40	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	1.40	93.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	1.40	93.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	2.80	91.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	2.80	91.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	2.80	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	2.80	115.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.10	137.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.10	137.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.10	174.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.10	174.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	2.10	136.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	2.10	186.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	1.40	124.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	1.40	124.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	1.40	108.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.40	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	1.40	104.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.40	106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	1.40	106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	43.40	2894.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: NEW MEXICO

ENERGY REQUIREMENT KWH

TABLE D42

ENERGY: TOTAL TERMINAL

OPERATION

TIME PERIOD	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000							
JAN : 1	213.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	213.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	193.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	193.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	193.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	193.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	172.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	171.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	108.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	108.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	43.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	42.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	21.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	21.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	21.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	22.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	42.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	42.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	86.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	86.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	149.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	149.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	214.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	214.00	37.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	2909.00	888.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

GLON: TEXAS

ENERGY REQUIREMENT KWH

TABLE D43

ENERGY: TOTAL ELECTRIC

OPERATION

TIME PERIOD	BEEF FLEECLOT KWH/HEAD	BEEF STOCKERS KWH/HEAD	MILK CONS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD				
JAN : 1 :	2.70	.06	16.00	.01	2.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	16.00	.01	2.00	0.00	0.00	0.00	0.00
FEB : 1 :	2.70	.06	15.00	.01	2.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	15.00	.01	2.00	0.00	0.00	0.00	0.00
MARCH : 1 :	2.70	.06	15.00	.01	2.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	15.00	.01	2.00	0.00	0.00	0.00	0.00
APRIL : 1 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
MAY : 1 :	2.70	.06	17.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	17.00	.01	1.00	0.00	0.00	0.00	0.00
JUNE : 1 :	2.70	.06	17.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	17.00	.01	1.00	0.00	0.00	0.00	0.00
JULY : 1 :	2.70	.06	18.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	18.00	.01	1.00	0.00	0.00	0.00	0.00
AUG : 1 :	2.70	.06	18.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	18.00	.01	1.00	0.00	0.00	0.00	0.00
SEPT : 1 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
OCT : 1 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	16.00	.01	1.00	0.00	0.00	0.00	0.00
NOV : 1 :	2.70	.06	14.00	.01	1.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	14.00	.01	1.00	0.00	0.00	0.00	0.00
DEC : 1 :	2.70	.06	16.00	.01	2.00	0.00	0.00	0.00	0.00
: 2 :	2.70	.06	16.00	.01	2.00	0.00	0.00	0.00	0.00
TOTALS	64.80	1.44	368.00	.24	32.00	0.00	0.00	0.00	0.00

404

REGION: TEXAS

ENERGY REQUIREMENT KWH

TABLE D44

ENERGY: TOTAL THERMAL

TIME PERIOD		MILK COWS KWH/HEAD	BEEF FEEDLOT KWH/HEAD	OPERATION						
JAN	1	14.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB	1	14.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	14.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT	1	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	12.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	1	13.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	13.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC	1	15.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	15.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS		304.00	312.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

REGION: TEXAS

ENERGY REQUIREMENT KWH

TABLE D45

ENERGY: TOTAL ELECTRICAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	1.80	73.00	6.00	27.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.80	73.00	6.00	27.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.70	74.00	5.00	30.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	1.70	74.00	4.00	30.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.00	71.00	6.00	36.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	2.00	71.00	6.00	36.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	2.00	68.00	5.00	31.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	2.00	68.00	5.00	31.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	2.00	78.00	6.00	30.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	2.00	78.00	5.00	30.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	2.00	93.00	7.00	37.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	2.00	93.00	7.00	40.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.00	127.00	8.00	40.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.00	127.00	8.00	40.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	2.50	125.00	8.00	18.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	2.50	125.00	7.00	17.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	3.00	80.00	6.00	8.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	3.00	79.00	5.00	8.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	2.00	68.00	5.00	9.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	2.00	66.00	5.00	10.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.50	66.00	5.00	10.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	1.50	66.00	5.00	10.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.70	66.00	5.00	14.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	1.70	66.00	5.00	14.00	0.00	0.00	0.00	0.00	0.00
TOTALS	48.40	1975.00	140.00	583.00	0.00	0.00	0.00	0.00	0.00

REGION: TEXAS

ENERGY REQUIREMENT KWH

TABLE D46:

ENERGY: TOTAL THERMAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1 :	357.00	64.00	178.00	919.00	0.00	0.00	0.00	0.00	0.00
: 2 :	357.00	64.00	178.00	919.00	0.00	0.00	0.00	0.00	0.00
FEB : 1 :	300.00	64.00	125.00	874.00	0.00	0.00	0.00	0.00	0.00
: 2 :	300.00	64.00	125.00	874.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1 :	281.00	64.00	118.00	844.00	0.00	0.00	0.00	0.00	0.00
: 2 :	281.00	64.00	118.00	844.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1 :	174.00	61.00	60.00	669.00	0.00	0.00	0.00	0.00	0.00
: 2 :	174.00	61.00	60.00	669.00	0.00	0.00	0.00	0.00	0.00
MAY : 1 :	70.00	59.00	29.00	527.00	0.00	0.00	0.00	0.00	0.00
: 2 :	70.00	59.00	29.00	527.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1 :	20.00	45.00	9.00	224.00	0.00	0.00	0.00	0.00	0.00
: 2 :	20.00	45.00	9.00	224.00	0.00	0.00	0.00	0.00	0.00
JULY : 1 :	17.00	58.00	8.00	83.00	0.00	0.00	0.00	0.00	0.00
: 2 :	17.00	58.00	8.00	83.00	0.00	0.00	0.00	0.00	0.00
AUG : 1 :	17.00	58.00	8.00	58.00	0.00	0.00	0.00	0.00	0.00
: 2 :	18.00	58.00	8.00	58.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1 :	40.00	58.00	9.00	110.00	0.00	0.00	0.00	0.00	0.00
: 2 :	40.00	58.00	9.00	110.00	0.00	0.00	0.00	0.00	0.00
OCT : 1 :	115.00	58.00	40.00	195.00	0.00	0.00	0.00	0.00	0.00
: 2 :	115.00	57.00	41.00	195.00	0.00	0.00	0.00	0.00	0.00
NOV : 1 :	169.00	57.00	78.00	280.00	0.00	0.00	0.00	0.00	0.00
: 2 :	169.00	57.00	78.00	280.00	0.00	0.00	0.00	0.00	0.00
DEC : 1 :	291.00	57.00	139.00	489.00	0.00	0.00	0.00	0.00	0.00
: 2 :	291.00	58.00	140.00	489.00	0.00	0.00	0.00	0.00	0.00
TOTALS	3703.00	1406.00	1604.00	10544.00	0.00	0.00	0.00	0.00	0.00



DEMAND: TOTAL ELECTRIC

TIME PERIOD	OPERATION								
	BEEF FEEDLOT KWH/HEAD	BEEF COW-CALF KWH/HEAD	MILK COWS KWH/HEAD	SHEEP KWH/HEAD	SWINE PRODUCED KWH/HEAD				
JAN : 1	9.00	.70	21.00	.03	1.25	0.00	0.00	0.00	
JAN : 2	9.00	.70	21.00	.03	1.25	0.00	0.00	0.00	
FEB : 1	9.00	.70	20.00	.03	1.25	0.00	0.00	0.00	
FEB : 2	9.00	.70	20.00	.03	1.25	0.00	0.00	0.00	
MARCH : 1	9.00	.80	20.00	.03	.65	0.00	0.00	0.00	
MARCH : 2	9.00	.80	20.00	.03	.65	0.00	0.00	0.00	
APRIL : 1	9.00	.50	20.00	.03	.65	0.00	0.00	0.00	
APRIL : 2	9.00	.50	20.00	.03	.65	0.00	0.00	0.00	
MAY : 1	9.00	.30	20.00	.03	.65	0.00	0.00	0.00	
MAY : 2	9.00	.30	20.00	.03	.65	0.00	0.00	0.00	
JUNE : 1	9.00	.30	22.00	.03	0.00	0.00	0.00	0.00	
JUNE : 2	9.00	.30	22.00	.03	0.00	0.00	0.00	0.00	
JULY : 1	9.00	.30	23.00	.03	0.00	0.00	0.00	0.00	
JULY : 2	9.00	.30	23.00	.03	0.00	0.00	0.00	0.00	
AUG : 1	9.00	.30	22.00	.03	0.00	0.00	0.00	0.00	
AUG : 2	9.00	.30	22.00	.03	0.00	0.00	0.00	0.00	
SEPT : 1	9.00	.30	20.00	.03	.60	0.00	0.00	0.00	
SEPT : 2	9.00	.30	20.00	.03	.60	0.00	0.00	0.00	
OCT : 1	9.00	.40	19.00	.03	.60	0.00	0.00	0.00	
OCT : 2	9.00	.40	19.00	.03	.60	0.00	0.00	0.00	
NOV : 1	9.00	.50	20.00	.03	.60	0.00	0.00	0.00	
NOV : 2	9.00	.50	20.00	.03	.60	0.00	0.00	0.00	
DEC : 1	9.00	.70	21.00	.03	1.25	0.00	0.00	0.00	
DEC : 2	9.00	.70	21.00	.03	1.25	0.00	0.00	0.00	
TOTALS	216.00	11.60	456.00	.72	15.00	0.00	0.00	0.00	

REGION: WASHINGTON

ENERGY REQUIREMENT

TABLE D48

ENERGY: TOTAL SUPPLY

CATTLE

TIME PERIOD	BELT FEEDLOT KWH/HEAD	BELT COW-CAIF KWH/HEAD	MILK COWS KWH/HEAD						
JAN : 1	.30	1.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	.30	1.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	.30	1.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	.30	1.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	.20	1.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	.20	1.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	.10	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	.10	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	.10	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	.10	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	.20	1.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	.20	1.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	.20	1.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	.30	1.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	.30	1.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	5.00	24.00	216.00	0.00	0.00	0.00	0.00	0.00	0.00

ENERGY: TOTAL ELECTRICAL

TIME PERIOD	OPERATION								
	POULTRY PULLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	1.20	132.00	8.70	14.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	1.20	132.00	8.70	14.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	1.70	129.00	8.70	14.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	1.70	129.00	8.70	14.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	2.60	122.00	9.50	19.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	2.60	122.00	9.50	19.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	3.00	119.00	10.00	18.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	3.00	119.00	10.00	18.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	2.00	150.00	10.80	17.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	2.00	150.00	10.80	17.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	3.00	182.00	11.00	20.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	3.00	182.00	11.00	20.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	2.00	238.00	11.50	29.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	2.00	238.00	11.50	29.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	2.00	244.00	10.80	8.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	2.00	244.00	10.80	8.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	2.00	155.00	6.50	2.40	0.00	0.00	0.00	0.00	0.00
SEPT : 2	2.00	156.00	6.50	2.40	0.00	0.00	0.00	0.00	0.00
OCT : 1	1.50	133.00	5.90	1.20	0.00	0.00	0.00	0.00	0.00
OCT : 2	1.50	133.00	5.90	1.20	0.00	0.00	0.00	0.00	0.00
NOV : 1	1.00	133.00	5.60	2.40	0.00	0.00	0.00	0.00	0.00
NOV : 2	1.00	133.00	5.60	2.40	0.00	0.00	0.00	0.00	0.00
DEC : 1	1.70	130.00	5.80	6.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	1.70	130.00	5.80	6.00	0.00	0.00	0.00	0.00	0.00
TOTALS	47.40	3736.00	209.60	302.00	0.00	0.00	0.00	0.00	0.00

STATE: WASHINGTON

ENERGY REQUIREMENT KWH

TABLE D50

AGENCY: FOIAL BUREAU

TIME PERIOD	OPERATION								
	POULTRY PILLETS KWH/1000	POULTRY EGGS KWH/1000	POULTRY BROILERS KWH/1000	POULTRY TURKEYS KWH/1000					
JAN : 1	105.00	33.00	103.00	765.00	0.00	0.00	0.00	0.00	0.00
JAN : 2	105.00	33.00	103.00	765.00	0.00	0.00	0.00	0.00	0.00
FEB : 1	135.00	33.00	86.00	732.00	0.00	0.00	0.00	0.00	0.00
FEB : 2	135.00	33.00	86.00	732.00	0.00	0.00	0.00	0.00	0.00
MARCH : 1	226.00	33.00	101.00	865.00	0.00	0.00	0.00	0.00	0.00
MARCH : 2	226.00	33.00	101.00	865.00	0.00	0.00	0.00	0.00	0.00
APRIL : 1	219.00	33.00	89.00	632.00	0.00	0.00	0.00	0.00	0.00
APRIL : 2	219.00	33.00	89.00	632.00	0.00	0.00	0.00	0.00	0.00
MAY : 1	118.00	36.00	69.00	433.00	0.00	0.00	0.00	0.00	0.00
MAY : 2	118.00	36.00	69.00	433.00	0.00	0.00	0.00	0.00	0.00
JUNE : 1	91.00	36.00	43.00	333.00	0.00	0.00	0.00	0.00	0.00
JUNE : 2	91.00	36.00	43.00	333.00	0.00	0.00	0.00	0.00	0.00
JULY : 1	47.00	36.00	33.00	200.00	0.00	0.00	0.00	0.00	0.00
JULY : 2	47.00	36.00	33.00	200.00	0.00	0.00	0.00	0.00	0.00
AUG : 1	54.00	36.00	30.00	100.00	0.00	0.00	0.00	0.00	0.00
AUG : 2	54.00	36.00	30.00	100.00	0.00	0.00	0.00	0.00	0.00
SEPT : 1	64.00	33.00	26.00	67.00	0.00	0.00	0.00	0.00	0.00
SEPT : 2	64.00	33.00	26.00	67.00	0.00	0.00	0.00	0.00	0.00
OCT : 1	81.00	33.00	41.00	67.00	0.00	0.00	0.00	0.00	0.00
OCT : 2	81.00	33.00	41.00	67.00	0.00	0.00	0.00	0.00	0.00
NOV : 1	111.00	33.00	53.00	100.00	0.00	0.00	0.00	0.00	0.00
NOV : 2	111.00	33.00	53.00	100.00	0.00	0.00	0.00	0.00	0.00
DEC : 1	152.00	33.00	64.00	333.00	0.00	0.00	0.00	0.00	0.00
DEC : 2	152.00	33.00	64.00	333.00	0.00	0.00	0.00	0.00	0.00
TOTALS	2806.00	816.00	1476.00	9254.00	0.00	0.00	0.00	0.00	0.00

TABLE D51

## ON-FARM CROP DRYING ENERGY, 1974

Crop	State	Quantity Dried On-Farm 1000 bu	Average <sup>1</sup> Yield bu/acre	Fuel Type		Total Thermal 1000 KWH	Total Electric 1000 KWH	KWH <sub>t</sub> /Bu	KWH <sub>e</sub> /Bu
				Electricity 1000 KWH	LP Gas 1000 gal.				
R I C E  G R A I N  S O R G H U M	California	5464	118 <sup>2</sup>	1694	328	9070	1694	1.66	.31
	Arizona	595	78	131	42	1154	131	1.94	.22
	California	738	72	162	52	1431	162	1.94	.22
	Colorado	1153	29	224	95	2615	224	2.27	.19
	Kansas	63744	40	14024	4462	123466	14024	1.94	.22
	Nebraska	9653	33	1872	792	21901	1872	2.27	.19
	Oklahoma	1140	36	251	80	2208	251	1.94	.19
Texas	15600	52	3432	1092	30216	3432	1.94	.19	
C O R N	Colorado	11500	98	1035	1495	41367	1035	3.60	.09
	Kansas	78888	79	7889	11044	305596	7889	3.87	.10
	Nebraska	209440	70	21991	30369	840305	21991	4.01	.11

<sup>1</sup>Yield data obtained from Field Crops, Estimates by States 1969-74, USDA, SRS, Stat. Bull. 582, Washington, D.C., December, 1977.

<sup>2</sup>California rice yield, reported in pounds/acre, was converted to bu/acre by assuming 1 bushel rice = 45 pounds.

ON-FARM CROP DRYING SCHEDULE  
(Percent of Total Crop Dried Per Two-Week Interval)

TABLE D52

Crop	Region	August		September		October		November	
		1	2	1	2	1	2	1	2
C O R N	Colorado			25	25	25	25		
	Kansas					35	35	15	15
	Nebraska					35	35	15	15
S O R G H U M	Arizona	30	30	20	20				
	California	30	30	20	20				
	Colorado			5	5	30	30	15	15
	Kansas			5	5	25	25	20	20
	Nebraska			20	20	30	30		
	Oklahoma	10	10	20	20	20	20		
	Texas	30	30	20	20				
R I C E	California			4	4	46	46		

TABLE D53

ON-FARM CROP DRYING SCHEDULE - Electrical  
(KWH<sub>e</sub>/acre)

Crop	Region	August		Sept.		Oct.		Nov.	
		1	2	1	2	1	2	1	2
C O R N	Colorado			8.8	8.8	8.8	8.8		
	Kansas					7.9	7.9	7.9	7.9
	Nebraska					7.7	7.7	7.7	7.7
S O R G H U M	Arizona	17.2	17.2	17.2	17.2				
	California	15.8	15.8	15.8	15.8				
	Colorado			5.5	5.5	5.5	5.5	5.5	5.5
	Kansas			8.8	8.8	8.8	8.8	8.8	8.8
	Nebraska			6.3	6.3	6.3	6.3		
	Oklahoma	6.8	6.8	6.8	6.8	6.8	6.8		
	Texas	9.9	9.9	9.9	9.9				
R I C E	California			36.6	36.6	36.6	36.6		

TABLE D54

ON-FARM CROP DRYING SCHEDULE - Thermal  
(KWH<sub>t</sub>/acre)

Crop	Region	August		Sept.		Oct.		Nov.	
		1	2	1	2	1	2	1	2
C O R N	Colorado			353	353	353	353		
	Kansas					306	306	306	306
	Nebraska					281	281	281	281
S O R G H U M	Arizona	151	151	151	151				
	California	140	140	140	140				
	Colorado			66	66	66	66	66	66
	Kansas			78	78	78	78	78	78
	Nebraska			75	75	75	75		
	Oklahoma	70	70	70	70	70	70		
	Texas	101	101	101	101				
R I C E	California			196	196	196	196		



Electrical and thermal energy demand in two cotton gins, 1977, Central Arizona.

	Sept.		Oct.		Nov.		Dec.		Jan.		Feb.		Mar.
	1	2	1	2	1	2	1	2	1	2	1	2	1
Gin #1													
Electrical, KWH <sub>e</sub>	0	0	80	82,320	88,920	145,440	162,000	48,320	380	11,050	9,400	25,290	0
Thermal, KWH <sub>t</sub>	0	0	23,400	76,440	82,570	75,220	83,790	12,740	100	10,020	8,220	5,160	0
Gin #2													
Electrical, KWH <sub>e</sub>	0	0	10	43,770	70,590	78,520	49,720	11,490	2,990	0	0	0	0
Thermal, KWH <sub>t</sub>	0	3,830	2,290	47,920	93,400	76,200	48,240	570	150	0	0	0	0

Electrical energy demand  $\approx 0.186$  KWH<sub>e</sub>/lb lint cotton ginned

Thermal energy use  $\approx 0.122$  KWH<sub>t</sub>/lb lint cotton ginned

A difference in meter reading dates between natural gas and electricity probably accounts for an apparent time shift between the use periods.

TABLE D56

Electrical and thermal energy demand in a greenhouse, Tucson, AZ.

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
Electrical,																									
KWH <sub>e</sub> /AC	7400	7400	6950	6950	6800	6800	8000	8000	7150	7150	6600	6600	8350	8350	10500	10500	8500	8500	6500	6500	7100	7100	7400	7400	
Thermal,																									
KWH <sub>t</sub> /AC	263520	263520	190320	190320	21960	21960	17568	17568	3807	3807	0	0	0	0	0	0	0	0	0	20496	20496	175680	175680	204960	204960

APPENDIX E

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