

Chapter 4

Water Requirements

Contents:	FL652.0400	General	FL4-1
	FL652.0401	Methods for determining crop evapotranspiration	FL4-1
		(a) Direct measurement of crop evapotranspiration	FL4-1
		(b) Estimated crop evapotranspiration – ET _c	FL4-1
	FL652.0402	Crop evapotranspiration	FL4-2
		(a) Irrigation climatic zones	FL4-2
		(b) Daily crop ET rate for system design	FL4-4
	FL652.0403	Net irrigation water requirement	FL4-4
	FL652.0404	Management allowable soil-water depletion	FL4-9
	FL652.0405	Auxiliary water requirements (other needs)	FL4-9
	FL652.0406	Water table contribution	FL4-9
	FL652.0407	Water requirements for soil-water budget (balance analysis) ..	FL4-9
		(a) Example soil-water budget	FL4-10

Tables	Table FL4-1	Monthly Potential Evaporation (inches)	FL4-5
	Table FL4-2	Monthly Rainfall Normals (inches)	FL4-6
	Table FL4-3	Monthly Temperature Normals (°F)	FL4-7
		by Climatic Zone	
	Table FL4-4	Normal Monthly Minimum Temperatures (°F) ...	FL4-7
		by Climatic Zone.	
	Table FL4-5	Normal Monthly Maximum Temperature (°F)	FL4-7
		By Climatic Zone	

Tables	Table FL4-6	Irrigation water requirements (inches).....	FL4-11
	Table FL4-7	Recommended peak use consumptive use rates (inches/day).....	FL4-76
	Table FL4-8	Example soil-water budget.....	FL4-78

Figures	Figure FL4-1	Climatic Zones of Florida	FL4-3
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652.0400 General

Determination of irrigation water requirements requires a measurement or estimate of the rate of crop water use. Daily and weekly crop water use estimates are needed to schedule irrigation applications and determine minimum system capacities. Seasonal or annual water use estimates required to size irrigation reservoirs and to determine consumptive use permits. Therefore, a procedure to determine both short- and long-term rates of water use is necessary. Chapter 2, Irrigation Water Requirements, NEH, Part 623, describes the processes needed to determine crop evapotranspiration and irrigation water requirements for a crop, field, farm, and project.

Crop evapotranspiration (ET_c), sometimes called crop consumptive use, is the amount of water that plants use in transpiration and building cell tissue plus water evaporated from an adjacent soil surface. Crop evapotranspiration is influenced by several major factors: plant temperature, ambient air temperature, solar radiation (sunshine duration/intensity), wind speed/movement, relative humidity/vapor pressure, and soil-water availability. Daily, weekly, monthly, and seasonal local crop water use requirements must be known. These data are essential for planning, designing, and operating irrigation systems and for making irrigation management decisions, such as determining when and how much to irrigate.

Seasonal water requirements, in addition to crop water needs, may also include water used for preplant irrigation, agricultural waste application, leaching for salt control, temperature control (for frost protection, bud delay, and cooling for product quality), chemigation, facilitation of crop harvest, seed germination, and dust control.

652.0401 Methods for determining crop evapotranspiration

(a) Direct measurement of crop evapotranspiration

Direct measurement methods for ET_c include:

- aerodynamic method
- detailed soil moisture monitoring
- lysimetry
- plant porometers
- regional inflow-outflow measurements

All these methods require localized and detailed measurements of plant water use. Detailed soil moisture monitoring in controlled and self contained devices (lysimeters) is probably the most commonly used. Little long term historical data outside of a few ARS and university research stations are available. Use of lysimetry is discussed in more detail in Chapter 2, Irrigation Water Requirements, NEH, Part 623. The use of soil moisture monitoring devices to monitor crop ET is described in NEH, Part 623, Chapter 1, Plant-Soil-Water Relationships.

(b) Estimated crop evapotranspiration- ET_c

More than 20 methods have been developed to estimate the rate of crop ET based on local climate factors. The simplest methods are equations that generally use only mean air temperature. The more complex methods are described as energy equations. They require real time measurements of solar radiation, ambient air temperature, wind speed/movement, and relative humidity/vapor pressure. These equations have been adjusted for reference crop ET with lysimeter data. Selection of the method used for determining local crop ET depends on:

- Location, type, reliability, timeliness, and duration of climatic data;
- Natural pattern of evapotranspiration during the year; and
- Intended use of crop evapotranspiration estimates.

Although any crop can be used as the reference crop, clipped grass is the reference crop of choice. Some earlier reference crop research, mainly in the West, used 2-year old alfalfa (ET_r). With grass reference crop (ET_0) known, ET estimates for any crop at any stage of growth can be calculated by multiplying ET_0 by the appropriate crop growth stage coefficient (k_c), usually displayed as a curve or table. The resulting value is called crop evapotranspiration (ET_c). The following methods and equations used to estimate reference crop evapotranspiration, ET_0 , are described in detail in Part 623, Chapter 2, Irrigation Water Requirements (1990). The reference crop used is clipped grass. Crop coefficients are based on local or regional growth characteristics. The following methods are recommended by the Natural Resources Conservation Service (NRCS).

(1) Temperature method

- Food and Agricultural Organization (FAO) Modified Blaney-Criddle (FAO Paper 24)
- Modified Blaney-Criddle (SCS Technical Release No.21). This method is being maintained for historical and in some cases legal significance. See appendix A, NEH, Part 623, Chapter 2, Irrigation Water Requirements.

(2) Energy method

- Penman-Monteith method

(3) Radiation method

- FAO Radiation method (FAO Paper 24)

(4) Evaporation pan method

The FAO Modified Blaney-Criddle, Penman-Monteith, and FAO Radiation equations represent the most accurate equations for these specific methods. They are most accurately transferable over a wide range of climate conditions. These methods and equations are also widely accepted in the irrigation profession today (ASCE 1990).

The intended use, reliability, and availability of local climatic data may be the deciding factor as

to which equation or method is used. For irrigation scheduling on a daily basis, an *energy* method, such as the Penman-Monteith equation, is probably the most accurate method available today, but complete and reliable local real time climatic data must be available. For irrigation scheduling information on a 10+ day average basis, use of a *radiation* method, such as FAO Radiation, or use of a local evaporation pan, may be quite satisfactory.

For estimation of monthly and seasonal crop water needs, a *temperature* based method generally proves to be quite satisfactory. The FAO Modified Blaney-Criddle equation uses long term mean temperature data with input of estimates of relative humidity, wind movement, and sunlight duration. This method also includes an adjustment for elevation. The FAO Radiation method uses locally measured solar radiation and air temperature.

652.0402 Crop evapotranspiration

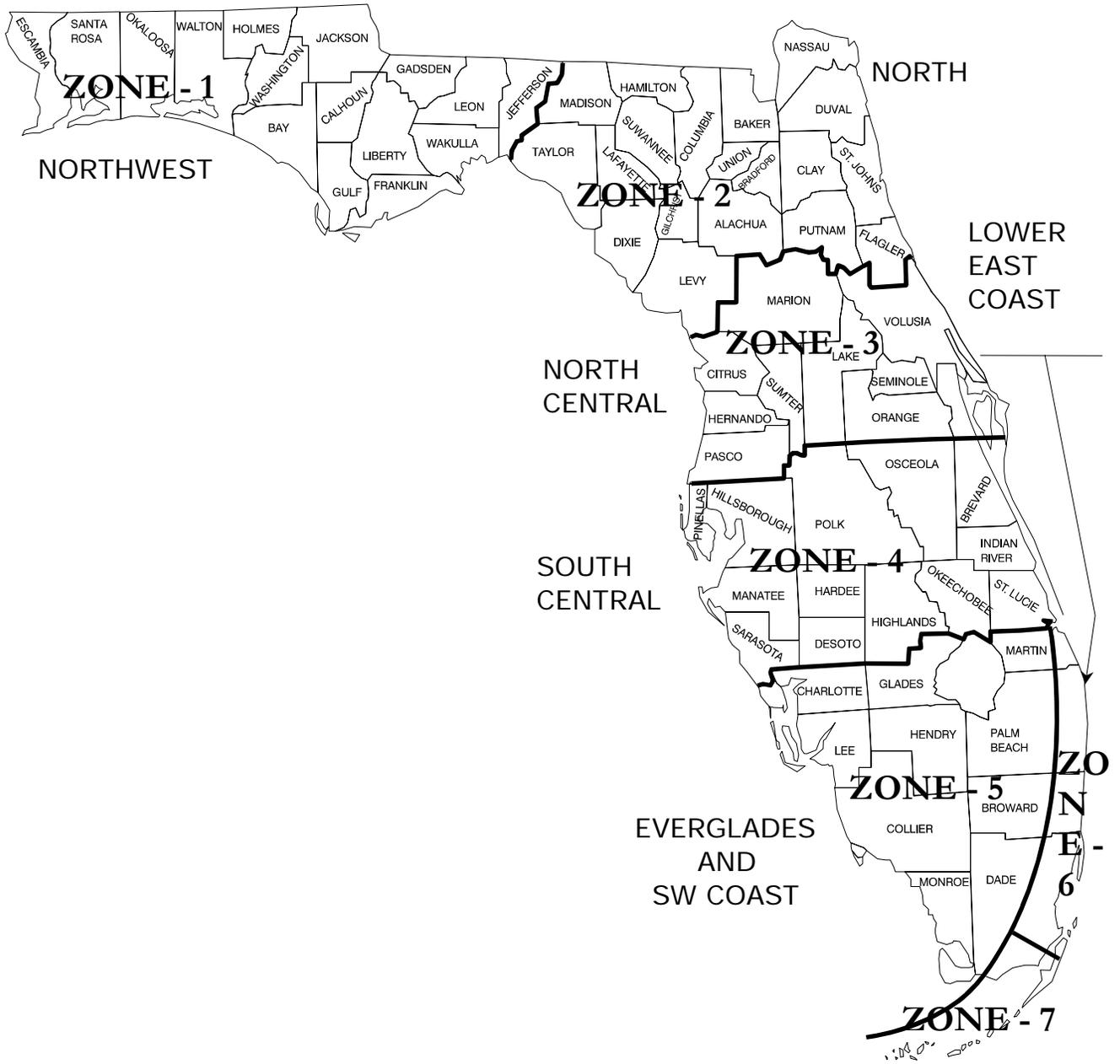
Monthly and seasonal crop ET data for Florida was developed using the FAO Modified Blaney-Criddle equation. Crop planting and harvest dates were determined by using information obtained from NRCS field personnel. The process provides:

- Estimated crop ET and net irrigation requirements by month and by season
- Amount of effective rainfall
- Estimated planting and harvest dates for all local crops

(a) Irrigation Climatic Zones

The climate includes several factors that affect the consumptive water requirements of crops. The effects and variation of climate within the state divide Florida into seven climatic zones representing nearly homogeneous climatic regimes. Florida's climatic zones are shown in Figure FL4-1.

Figure FL4-1 Climatic Zones of Florida



Monthly potential evaporation is shown in Table FL4-1 for each climate zone and several selected weather stations.

Monthly normal temperature and precipitation and annual normal rainfall for the period 1961-1990 was used for each climatic zone as input data to determine water requirements of various crops. Monthly rainfall and temperature by climatic zone is shown in Table FL4-2 and Table FL4-3, respectively.

Monthly normal minimum and maximum temperature by climatic zone is shown in Table FL4-4 and Table FL4-5, respectively. Normal minimum and maximum temperature data is needed by some crop ET estimation methods.

(b) Daily crop ET rate for system design

Estimates of daily or weekly crop ET rates are necessary to adequately size distribution systems. They are used to determine the minimum capacity requirements of canals, pipelines, water control structures, and irrigation application systems. Daily ET rates also influence the administration of wells, streams, and reservoirs from which irrigation water is diverted or pumped. To provide the required flows, daily (or several day averages) crop ET rate for the peak month must be used.

Estimated daily crop ET is not the average daily use for longer time periods. Daily crop ET is best estimated using real time day-specific information and the appropriate ET equation.

652.0403 Net irrigation water requirement

The net irrigation water requirement is defined as the water required by irrigation to satisfy crop evapotranspiration and auxiliary water needs that are not provided by water stored in the soil profile or precipitation. The net irrigation water requirement is defined as (all values are depths, in inches):

$$F_n = ET_c + A_w - R_e - GW - \Delta SW$$

where:

F_n = net irrigation requirement for period considered

ET_c = crop evapotranspiration for period considered

A_w = auxiliary water-leaching, temperature modification, crop quality

R_e = effective precipitation during period considered

GW = ground water contribution

ΔSW = change in soil-water content for period considered

Along with meeting the seasonal irrigation water requirement, irrigation systems must be able to supply enough water during shorter periods. The water supply rate generally is expressed in acre inches per hour or acre inches per day and can be easily converted to cubic feet per second or gallons per minute (1 ft³/s = 1 ac-in/hr = 450 gpm). The simplified equation can be used:

$$QT = DA$$

where:

Q = flow rate, acre-inch per hour

T = time, hours

D = depth, inches (water applied or crop ET)

A = area, acres

The irrigation system must be able to supply net water requirements plus expected losses of deep percolation, runoff, wind drift, and evaporation. It must account for the efficiency of the irrigation decision-maker to schedule the right amount of water at the right time and the ability of an irrigation system to uniformly apply that water across a field. Net and gross water application and system capacity are related by an estimated or measured application efficiency:

$$F_g = \frac{F_n}{E_a} \quad C_g = \frac{C_n}{E_a}$$

where:

F_g = gross application, inches

F_n = net application, inches

E_a = application efficiency, expressed as decimal

C_g = gross system capacity, gallons per minute

C_n = net system capacity, gallons per minute

Table FL4-1 Monthly – Potential Evaporation (inches)

CITY	COUNTY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL EVAP.
ZONE 1 ^{1/}	Florida	1.98	2.48	3.88	4.86	5.45	5.74	5.35	5.02	4.59	3.91	2.53	1.88	47.68
ZONE 2 ^{1/}	Florida	2.25	2.83	4.29	5.37	5.92	5.72	5.55	5.03	4.42	3.75	2.71	2.20	50.05
ZONE 3 ^{1/}	Florida	2.21	2.69	4.01	5.06	5.63	5.24	5.04	4.64	3.98	3.53	2.60	2.13	46.73
ZONE 4 ^{1/}	Florida	2.44	2.88	4.39	5.37	5.87	5.29	5.31	5.03	4.40	3.90	2.83	2.26	49.97
ZONE 5 ^{1/}	Florida	2.70	2.99	4.33	5.17	5.57	5.00	5.11	4.90	4.25	4.00	2.94	2.48	49.44
ZONE 6 ^{1/}	Florida	2.56	2.99	4.20	5.02	5.40	4.85	4.88	4.78	4.06	3.76	2.93	2.43	47.86
ZONE 7 ^{1/}	Florida	3.70	3.70	5.18	6.66	6.66	5.92	6.03	5.50	4.44	4.44	2.96	3.24	58.43
Vero Beach ^{2/}	Indian River	2.07	2.66	4.03	4.91	5.23	4.93	4.91	4.68	3.72	3.56	2.45	1.95	45.11
Belle Glade ^{2/}	Palm Beach	2.41	2.87	4.10	4.64	5.09	4.53	4.56	4.43	3.82	3.41	2.64	2.26	44.76
Flamingo ^{2/}	Monroe	3.60	3.60	5.04	6.48	6.48	5.76	5.87	5.35	4.32	4.32	2.88	3.15	56.85
Ft Lauderdale ^{2/}	Broward	2.83	3.20	4.62	5.58	5.79	5.12	5.29	5.16	4.40	4.08	3.19	2.82	52.09
Gainesville ^{2/}	Alachua	2.24	2.82	4.29	5.43	6.06	5.77	5.43	5.10	4.36	3.78	2.74	2.14	50.15
Lake Alfred ^{2/}	Polk	2.46	2.89	4.45	5.45	6.04	5.35	5.42	5.12	4.57	3.92	2.89	2.29	50.85
Lake City ^{2/}	Columbia	2.27	2.86	4.33	5.37	5.85	5.74	5.69	5.01	4.50	3.75	2.71	2.26	50.34
Lisbon ^{2/}	Lake	2.09	2.51	3.81	5.01	5.43	5.02	4.98	4.58	3.87	3.37	2.44	2.04	45.15
Milton ^{2/}	Santa Rosa	1.96	2.48	3.79	4.75	5.34	5.38	4.99	4.60	4.01	3.57	2.42	1.76	45.04
Moore Haven ^{2/}	Glades	2.92	3.10	4.66	5.67	6.12	5.53	5.40	5.16	4.72	4.26	3.21	2.59	53.33
Tamiami TRL ^{2/}	Dade	2.45	2.81	3.95	4.61	4.99	4.49	5.02	4.80	3.91	4.04	2.78	2.34	46.17

^{1/} Data derived using Thiessen Method by zone using NOAA Technical Report NWS 34 data

^{2/} Data based upon NOAA Technical Report NWS 34

Table FL4-2 Monthly Rainfall Normals (Inches)

CITY	COUNTY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL RAINFALL
ZONE 1 ^{1/}	Florida	4.03	4.35	5.78	4.48	3.81	5.80	7.83	6.84	6.56	2.94	3.13	4.30	59.85
ZONE 2 ^{1/}	Florida	2.97	3.67	4.20	3.09	3.53	6.18	7.83	7.44	6.88	3.99	2.15	2.89	54.82
ZONE 3 ^{1/}	Florida	2.40	3.06	3.90	2.77	3.16	7.04	8.19	7.69	7.25	4.21	1.79	2.21	53.67
ZONE 4 ^{1/}	Florida	2.27	2.76	3.64	2.68	3.43	7.31	8.00	7.71	7.50	4.02	1.87	1.99	53.18
ZONE 5 ^{1/}	Florida	1.76	1.99	2.72	2.44	4.48	8.78	8.00	7.30	8.24	4.80	1.37	1.44	53.32
ZONE 6 ^{1/}	Florida	2.29	2.18	2.59	3.31	5.47	8.53	6.57	6.63	9.02	8.41	2.56	1.97	59.53
ZONE 7 ^{1/}	Florida	1.84	1.91	1.84	2.10	3.15	5.30	4.12	4.45	7.02	6.80	2.35	1.76	42.64
Vero Beach ^{2/}	Indian River	2.72	2.92	3.84	2.55	4.39	6.95	6.36	6.93	7.20	5.60	3.83	2.28	55.57
Belle Glade ^{2/}	Palm Beach	2.51	1.88	2.65	2.38	5.04	7.33	7.42	7.16	7.08	3.54	2.79	1.79	51.57
Flamingo ^{2/}	Monroe	1.94	1.62	1.92	2.15	4.84	7.25	4.73	7.47	6.84	4.40	2.40	1.54	47.10
Ft Lauderdale ^{2/}	Broward	2.94	2.70	2.80	3.90	6.33	10.01	6.70	6.88	8.26	6.44	4.57	2.64	64.17
Gainesville ^{3/}	Alachua	3.58	4.41	3.77	2.78	3.95	6.25	6.47	7.84	5.73	1.68	2.42	3.24	52.12
Lake Alfred ^{2/}	Polk	2.52	2.75	3.43	2.04	4.07	6.75	7.01	7.55	6.47	3.03	2.33	2.26	50.21
Lake City ^{2/}	Columbia	4.52	3.58	4.90	3.15	3.71	6.91	6.74	7.18	4.67	2.82	2.42	2.96	55.53
Lisbon ^{2/}	Lake	3.32	2.87	4.03	2.80	4.13	6.13	5.67	6.18	5.76	2.54	2.53	2.65	48.61
Milton ^{2/}	Santa Rosa	6.24	5.04	7.32	4.34	4.83	7.11	8.17	6.70	6.06	3.76	5.47	4.40	69.44
Moore Haven ^{2/}	Glades	2.04	2.05	2.93	2.32	3.70	6.99	6.67	6.80	6.42	2.95	1.91	1.62	46.40
Tamiami TRL ^{2/}	Dade	1.83	1.98	2.04	2.60	4.82	8.52	7.70	6.95	6.64	4.34	2.28	2.25	51.95

^{1/} Derived using Thiessen Method by zone using NOAA Climatology of the United States No. 81 data

^{2/} Data based on NRCS WETS table with start year 1971 and end year 2000

^{3/} Data based on NRCS TAPS table with start year 1961 and end year 1990

Table FL4-3 Monthly Temperature Normals (°F) by Climatic Zone ^{1/}

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ZONE 1	50.3	53.2	60.1	66.7	73.4	79.2	80.9	80.7	77.5	68.2	59.8	53.2
ZONE 2	53.8	56.0	62.6	68.2	74.3	79.4	81.2	81.0	78.5	70.6	62.7	56.2
ZONE 3	58.2	59.9	65.5	70.3	75.7	80.0	81.5	81.4	79.7	73.4	66.2	60.4
ZONE 4	60.9	62.3	67.2	71.4	76.5	80.3	81.7	81.8	80.5	75.0	68.4	62.9
ZONE 5	63.7	64.8	68.9	72.5	76.9	80.4	81.8	82.1	81.1	76.6	70.7	65.6
ZONE 6	66.2	67.0	70.7	73.9	77.5	80.5	82.1	82.3	81.3	77.6	72.4	68.0
ZONE 7	69.6	70.3	73.7	77.0	80.2	82.7	84.3	84.4	83.1	79.8	75.5	71.4

^{1/} Source: National Oceanic and Atmospheric Administration, Divisional Normals and Standard Deviations of Temperature (°F) and Precipitation (Inches) (1961-1990)

Table FL4-4 Normal Monthly Minimum Temperatures (°F) by Climatic Zone ^{1/}

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ZONE 1	38.7	41.1	48.0	54.2	61.6	68.3	70.9	70.7	67.0	55.5	47.4	41.3
ZONE 2	41.3	43.3	49.6	54.9	61.9	68.2	70.7	70.8	68.3	58.7	50.2	43.7
ZONE 3	46.5	47.8	53.4	57.9	64.1	69.8	71.5	71.8	70.4	63.2	55.2	49.0
ZONE 4	50.4	51.6	56.7	60.6	66.3	71.3	72.9	73.2	72.1	65.9	58.6	52.7
ZONE 5	51.8	52.5	56.8	60.0	65.2	70.3	71.9	72.3	71.7	66.7	59.8	53.9
ZONE 6	57.2	57.8	62.3	65.7	70.0	73.4	74.8	75.2	74.5	70.6	64.9	59.6
ZONE 7	59.5	60.1	63.8	67.0	71.0	74.7	76.1	76.0	75.3	71.7	66.7	61.6

^{1/} Source: National Oceanic and Atmospheric Administration, Divisional Normals and Standard Deviations of Temperature (°F) and Precipitation (Inches) (1961-1990)

Table FL4-5 Normal Monthly Maximum Temperatures (°F) by Climatic Zone ^{1/}

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ZONE 1	61.5	64.8	71.7	78.7	85.0	89.8	90.7	90.4	87.7	80.4	71.9	64.7
ZONE 2	65.3	68.0	74.7	80.7	86.3	90.0	91.2	90.8	88.2	81.8	74.4	68.0
ZONE	69.8	71.7	77.4	82.7	87.4	90.2	91.3	91.1	89.0	83.7	77.2	71.9

3												
ZONE 4	71.2	72.7	77.4	82.0	86.7	89.2	90.3	90.2	88.5	84.0	78.0	73.0
ZONE 5	74.9	76.1	80.2	84.3	88.0	90.0	91.4	91.5	90.0	86.0	80.8	76.7
ZONE 6	75.3	76.2	79.2	82.4	85.4	87.9	89.6	89.8	88.5	85.0	80.5	76.7
ZONE 7	75.8	76.4	79.6	82.7	85.6	88.1	89.6	89.9	88.7	85.3	80.8	77.1

^{1/} Source: National Oceanic and Atmospheric Administration, Divisional Normals and Standard Deviations of Temperature (°F) and Precipitation (Inches) (1961-1990)

The designer must also account for system down time, i.e., moving of sprinklers, break downs, and water used on another field or by another irrigator, such as in a rotation delivery schedule.

For sprinkler systems, it is common to use 22 hours per day or 6 days per week for actual water application time.

The most conservative method of designing irrigation system capacity is to provide enough capacity to meet the maximum expected or peak evapotranspiration rate of the crop. This normally is the peak daily rate, but can be any selected period. In the most conservative case, rainfall and stored soil moisture are not considered. This design procedure relies on determining the distribution of crop ET during the year for the principal irrigated crops. The crop ET for the peak day, week, and month also varies from year to year. A frequency or risk analysis can be provided whereby system capacity and related cost reduction may be realized. Where effective rainfall and maximum available soil-water storage are used, further reduction of system capacity and water supply may be realized.

Table FL4-6 displays monthly crop ET, effective precipitation (R_e), and net irrigation requirement (NIR) for crops grown in Florida using FAO Blaney-Criddle equation. The net irrigation requirement shown in Table FL4-6 is adjusted for the effect of effective rainfall expected during a **normal** year (50 percent chance) and a **dry** year (80 percent chance). **Normal** year precipitation would be equaled or exceeded in 1 out of 2 years. **Dry** year precipitation would be equaled or exceeded 8 out of 10 years. The procedure for calculation of dry year effective precipitation was calculated using procedures described in NEH, Part 623, Chapter 2, Irrigation Water Requirements.

Table FL4-6 shows the expected monthly and seasonal consumptive use of commonly grown crops by climatic zone. Typical planting and harvest dates were used for the crops as shown in Table FL4-6. If more site specific monthly and seasonal consumptive use data is needed, it can be obtained by using the CON-USE computer software and using the site's climatic data and planned planting and harvest dates.

Effective rainfall is the amount of precipitation

falling during the growing period of the crop that is available to meet the consumptive water requirements of crops. Since there are no records of effective rainfall available, it is necessary to utilize total rainfall records and estimate the portion of total rainfall records that is effective. The amount of rainfall that is effective depends mostly on the rainfall, soil infiltration capacity, and the storage capacity of the soil at the time of rainfall. The estimated effective rainfall by climatic zone is in Table FL4-6.

The climate data used to create the irrigation water requirements in Table FL4-6 is based upon climatic zone data averaged over the years 1961 - 1990.

The net irrigation requirement in Table FL4-6 is affected by the net irrigation application. Figures in Table FL4-4 are based on a net application depth of 1.0 inch. Since the effective rainfall is directly related to the net application depth, adjustments need to be made for net application depths other than 1.0 inch. See TR-21 for procedures in making adjustments for other net application depths.

The peak consumptive use rate is the highest water use for the crop's growing season and is the design rate to be used in planning an irrigation system. Table FL4-7 gives the design peak consumptive use for the commonly grown crops in the various climatic zones. The peak use rates of Table FL4-7 are for the average planting and harvest dates for the crop as shown in Table FL4-6. The peak use rates were obtained using TR-21 procedures.

See NEH, Part 623, Chapter 2, Irrigation Water Requirements, for further information on determining the net irrigation requirement.

Note: Where precipitation exceeds crop evapotranspiration, an opportunity exists for leaching of nutrients and pesticides. This may occur if soil moisture is at field capacity so that precipitation will provide the excess soil water available for leaching. These displays are then basic water budgets in graphic form.

652.0404 Management allowable soil-water depletion

Management Allowable Depletion (MAD) is

generally defined for each local crop. It is a grower's management decision based on yield and product quality objectives whether or not to fine tune generalized MAD values. MAD is the greatest amount of water to be removed by plants before irrigation so that undesirable crop water stress does not occur. Historically, an allowable depletion of between 30 and 60 percent of the soil Available Water Capacity (AWC) has been used for management purposes. See Chapter 3, Crops, for summary of recommended MAD levels for various crops. Estimated irrigation frequency, in days, is based on the MAD level for the AWC in the total crop root zone and the estimated crop ET.

Irrigation frequency, in days, can be determined by:

$$\frac{\text{MAD} \times \text{Total AWC for crop root zone in inches}}{\text{Daily ET}_c \text{ rate in inches/day}}$$

652.0405 Auxiliary water requirements (other needs)

In addition to crop evapotranspiration water requirements, irrigation systems can also meet special needs of crops and soils. These other uses need to be considered when determining the seasonal water requirements and minimum system capacities. Auxiliary uses include the following and are described in more detail in NEH, Part 623, Chapter 2, Irrigation Water Requirements:

- Leaching requirement for salinity and sodicity management
- Frost protection (fruits, citrus, berries, vegetables)
- Bud delay
- Crop and soil cooling
- Wind erosion and dust control
- Chemigation
- Plant disease control
- Seed germination

652.0406 Water table contribution

Upward flow of water from a water table can be used to meet part of or all the seasonal crop water requirement. Reasonable estimates need to be made of the water supplied by a water table.

See Figure 2-6 in chapter 2 of this guide. Methods to predict upward soil-water flow rates (upflux) from a water table are given in NEH Part 623, Chapter 2, Irrigation Water Requirements, and in the water table management computer software program DRAINMOD. Soil parameters required for these procedures are quite variable and may require field data to evaluate specific sites.

652.0407 Water requirements for soil-water budget (balance analysis)

The components of a soil-water budget (balance analysis) must include all water going *in* and all water going *out* of an area for the period of consideration. The basic purpose for such an analysis is to determine the location of all water applied. Generally a soil-water budget analysis is determined for a period involving a month, an irrigation season, a year, or maybe even for an average over several years. Availability of climatic data may also dictate the time period for the analysis. For example, if long term mean temperature is the only reliable data available, determining monthly and seasonal water requirements may be the most accurate analysis that can be done. This would dictate a reasonably accurate analysis period of a month or longer.

If complete and reliable daily climatic data (temperature, solar radiation, wind movement, and relative humidity) are available nearby, then a daily soil-water accounting or balance can be developed because accurate daily water requirements can be estimated. The soil-water budget (balance analysis process) is a tool that can be used for determining gross water applied and contributions of irrigation water and precipitation to downstream surface water and ground water. The soil-water budget balance can be displayed in equation form as follows (sum may be positive if soil water is stored in the plant root zone):

$$F_g = ET_c + A_w + D_p + RO + SDL - P - GW - \Delta SW$$

where:

F_g = Gross irrigation water applied during the period considered

ET_c = Crop evapotranspiration during the period considered

- A_w = Water applied for auxiliary purposes during the period considered
- D_p = Deep percolation below the root zone from irrigation and precipitation
- RO = Surface runoff that leaves the site from irrigation and precipitation
- SDL = Spray, drift losses, and canopy intercept evaporation from sprinkler irrigation system during the period considered
- P = Total precipitation during the period considered
- GW = Ground water contribution to the crop root zone during the period
- ΔSW = Change in soil-water content within the crop root zone during the period

Note: Only those factors that apply to the site under consideration need to be used. Typically all factors would not be used for an analysis of one site.

Generally the soil-water budget analysis can be thought of as supporting a planning process where the soil-water balance analysis can be thought of as supporting an operational process. With appropriate soil-water content monitoring, accurate estimated daily crop ET and measurement of system inflow and surface outflow, a reliable daily soil-water balance can be developed. These daily values can be summarized for any desirable longer period that data are available.

The period of reliable climatic data is key to the soil-water budget balance analysis. For development of a soil-water balance, only immediate past events are evaluated. It is not an irrigation scheduling tool. For example, a soil-water balance is an analysis process of what water went where for the last year, last month, last week, last event, or from some specific date up to the present time. Each rainfall and irrigation event versus daily crop ET and soil-water content change can be evaluated. It requires appropriate and current monitoring of soil-water content, irrigation water applied, onsite rainfall measurement, runoff, and full climatic data for daily crop ET determination.

For development of a soil-water budget, historic climate data along with estimated or measured soil-water content, irrigation flows, and losses would be used. The time period for an analysis for an average condition is whatever is necessary

to provide reliable data. As an example, a site with fairly consistent climate from year to year, but with a rather short number of years record, might provide satisfactory results. Whereas a site with wide ranging climate from year to year might require a much longer period of record. An analysis showing the average for the last 5 years, or for a specific year of importance, could use climate data for that specific period only.

Table FL4-8 displays a simple and basic soil-water budget using assumed and estimated values. The input data can be refined to whatever degree is necessary with field observations or measurements, or both. In this table, a water surplus of 0.47 inches for the season is indicated, and the water will go into deep percolation below the root zone.

A soil-water budget can be developed for planning purposes or as an evaluation tool. As the example shows, the consultant can use any level of accuracy desired or necessary.

(a) Example soil-water budget

A simplified soil-water budget would be displayed using the following assumptions:

- Crop is grain corn.
- Mature rooting depth = 36 inches.
- Total AWC = 1.87 inches (Alphin).
- MAD = 50%.
- Soil profile is at field capacity at start of season.
- Sprinkler irrigation system with gross application for each irrigation = 1.0 inches.
- Application efficiency of 67% providing a net application = .67 inches.
- DU = 100% with no surface runoff.
- Precipitation infiltration for all season = 70% of total.
- No contribution from a shallow water table.

All crop ET, irrigation, and precipitation units are in inches. Additional and more detailed examples of a soil-water budget and a soil-water balance are in Chapter 8, Project and Farm Irrigation Water Requirement.

Table FL4-6 Irrigation Water Requirements - InchesClimatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Alfalfa</u>		Growing Season: March 15 - November 15			
March	0.97	0.97	0.00	0.83	0.14
April	3.08	1.79	1.30	1.54	1.54
May	5.23	2.20	3.03	1.89	3.34
June	7.11	3.53	3.58	3.04	4.07
July	7.56	4.42	3.14	3.80	3.76
August	6.53	3.79	2.74	3.26	3.27
September	4.72	2.77	1.95	2.38	2.34
October	2.74	1.61	1.13	1.38	1.36
November	<u>0.78</u>	<u>0.78</u>	<u>0.50</u>	<u>0.67</u>	<u>0.11</u>
Season Totals	38.72	21.86	17.37	18.80	19.92
Crop: <u>Corn, grain</u>		Growing Season: March 1 - June 30			
March	1.48	1.48	0.00	1.27	0.21
April	3.61	1.84	1.77	1.58	2.03
May	5.74	2.26	3.48	1.94	3.80
June	<u>5.41</u>	<u>3.57</u>	<u>2.34</u>	<u>3.07</u>	<u>2.34</u>
Season Totals	16.24	9.15	7.59	7.87	8.37
Crop: <u>Cotton</u>		Growing Season: April 15 - October 15			
April	1.01	1.01	0.00	0.87	0.14
May	3.20	1.96	1.24	1.69	1.51
June	5.05	3.15	1.91	2.71	2.34
July	6.79	4.24	2.55	3.65	3.14
August	5.90	3.66	2.24	3.15	2.75
September	3.62	2.60	1.02	2.24	1.38
October	<u>0.92</u>	<u>0.92</u>	<u>0.50</u>	<u>0.79</u>	<u>0.13</u>
Season Totals	26.49	17.54	9.46	15.08	11.41
Crop: <u>Grain, spring</u>		Growing Season: November 1 - March 31			
November	1.47	1.47	0.00	1.26	0.21
December	1.84	1.84	0.00	1.58	0.26
January	2.13	2.13	0.00	1.83	0.30
February	1.63	1.63	0.00	1.40	0.23
March	<u>1.27</u>	<u>1.27</u>	<u>0.50</u>	<u>1.09</u>	<u>0.18</u>
Season Totals	8.34	8.34	0.50	7.17	1.17

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Grapes</u>		Growing Season: March 15 - June 30			
March	0.78	0.78	0.00	0.67	0.11
April	2.43	1.72	0.71	1.48	0.95
May	4.35	2.09	2.26	1.80	2.55
June	<u>3.59</u>	<u>3.23</u>	<u>0.87</u>	<u>2.78</u>	<u>0.81</u>
Season Totals	11.15	7.82	3.84	6.73	4.42
Crop: <u>Melons & cantaloupes</u>		Growing Season: March 16 - June 15			
March	0.73	0.73	0.00	0.63	0.10
April	2.92	1.77	1.15	1.52	1.40
May	4.84	2.15	2.69	1.85	2.99
June	<u>2.24</u>	<u>2.24</u>	<u>0.50</u>	<u>1.93</u>	<u>0.31</u>
Season Totals	10.73	6.89	4.34	5.93	4.80
Crop: <u>Orchards</u>		Growing Season: March 15 - November 15			
March	1.02	1.02	0.00	0.88	0.14
April	3.13	1.79	1.34	1.54	1.59
May	5.31	2.21	3.10	1.90	3.41
June	7.07	3.52	3.55	3.03	4.04
July	7.56	4.42	3.14	3.80	3.76
August	6.55	3.79	2.76	3.26	3.29
September	4.74	2.77	1.97	2.38	2.36
October	2.71	1.61	1.10	1.38	1.33
November	<u>0.70</u>	<u>0.70</u>	<u>0.50</u>	<u>0.60</u>	<u>0.10</u>
Season Totals	38.79	21.83	17.46	18.77	20.02

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Pasture Grasses</u>		Growing Season: March 15 - November 15			
March	0.80	0.80	0.00	0.69	0.11
April	2.55	1.73	0.81	1.49	1.06
May	4.52	2.11	2.41	1.81	2.71
June	5.80	3.28	2.52	2.82	2.98
July	6.27	4.12	2.15	3.54	2.73
August	5.70	3.62	2.09	3.11	2.59
September	4.18	2.68	1.50	2.30	1.88
October	2.34	1.58	0.76	1.36	0.98
November	<u>0.67</u>	<u>0.67</u>	<u>0.50</u>	<u>0.58</u>	<u>0.09</u>
Season Totals	32.83	20.59	12.74	17.71	15.12
Crop: <u>Peanuts</u>		Growing Season: April 15 - August 15			
April	1.00	1.00	0.00	0.86	0.14
May	3.24	1.96	1.27	1.69	1.55
June	5.35	3.20	2.15	2.75	2.60
July	7.23	4.34	2.88	3.73	3.50
August	<u>2.42</u>	<u>2.42</u>	<u>0.50</u>	<u>2.08</u>	<u>0.34</u>
Season Totals	19.24	12.92	6.80	11.11	8.13
Crop: <u>Sorghum, grain</u>		Growing Season: May 15 - September 15			
May	1.47	1.47	0.00	1.26	0.21
June	4.90	3.12	1.78	2.68	2.22
July	7.34	4.37	2.97	3.76	3.58
August	5.32	3.54	1.78	3.04	2.28
September	<u>1.52</u>	<u>1.52</u>	<u>0.50</u>	<u>1.31</u>	<u>0.21</u>
Season Totals	20.55	14.02	7.03	12.06	8.49
Crop: <u>Soybeans</u>		Growing Season: June 1 - October 18			
June	3.15	2.43	0.72	2.09	1.06
July	4.60	3.75	0.85	3.23	1.38
August	6.22	3.72	2.49	3.20	3.02
September	4.95	2.80	2.15	2.41	2.54
October	<u>1.52</u>	<u>1.52</u>	<u>0.50</u>	<u>1.31</u>	<u>0.21</u>
Season Totals	20.44	14.22	6.71	12.23	8.21

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Tomatoes</u>		Growing Season: March 10 - June 15			
March	1.07	1.07	0.00	0.92	0.15
April	3.92	1.87	2.05	1.61	2.31
May	5.50	2.23	3.27	1.92	3.58
June	<u>2.35</u>	<u>2.35</u>	<u>0.50</u>	<u>2.02</u>	<u>0.33</u>
Season Totals	12.84	7.52	5.82	6.47	6.37
Crop: <u>Vegetables, small</u>		Growing Season: Jan.1 - Jan.30 (30 days)			
January	<u>1.33</u>	<u>1.18</u>	<u>0.14</u>	<u>1.01</u>	<u>0.32</u>
Season Totals	1.33	1.18	0.14	1.01	0.32
Crop: <u>Vegetables, small</u>		Growing Season: Jan.1 - March 1(60 days)			
January	1.09	1.09	0.00	0.94	0.15
February	1.31	1.31	0.00	1.13	0.18
March	<u>0.04</u>	<u>0.04</u>	<u>0.50</u>	<u>0.03</u>	<u>0.01</u>
Season Totals	2.44	2.44	0.50	2.10	0.34
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 – March 21 (80 days)			
January	0.98	0.98	0.00	0.84	0.14
February	1.48	1.48	0.00	1.27	0.21
March	<u>1.18</u>	<u>1.18</u>	<u>0.50</u>	<u>1.01</u>	<u>0.17</u>
Season Totals	3.64	3.64	0.50	3.13	0.51
Crop: <u>Vegetables, small</u>		Growing Season: Jan.1 - April 10 (100 days)			
January	0.93	0.93	0.00	0.80	0.13
February	1.45	1.45	0.00	1.25	0.20
March	2.14	2.14	0.00	1.84	0.30
April	<u>0.66</u>	<u>0.66</u>	<u>0.50</u>	<u>0.57</u>	<u>0.09</u>
Season Totals	5.18	5.18	0.50	4.45	0.73
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 – March 2 (30 days)			
February	1.37	1.37	0.00	1.18	0.19
March	<u>0.09</u>	<u>0.09</u>	<u>0.50</u>	<u>0.08</u>	<u>0.01</u>
Season Totals	1.46	1.46	0.50	1.26	0.20

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	1.08	1.08	0.00	0.93	0.15
March	2.21	2.21	0.00	1.90	0.31
April	<u>0.06</u>	<u>0.06</u>	<u>0.50</u>	<u>0.05</u>	<u>0.01</u>
Season Totals	3.35	3.35	0.50	2.88	0.47
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 21 (80 days)			
February	0.99	0.99	0.00	0.85	0.14
March	2.39	2.39	0.00	2.06	0.33
April	<u>1.63</u>	<u>1.63</u>	<u>0.50</u>	<u>1.40</u>	<u>0.23</u>
Season Totals	5.01	5.01	0.50	4.67	0.70
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - May 11 (100 days)			
February	0.94	0.94	0.00	0.81	0.13
March	2.33	2.33	0.00	2.00	0.33
April	2.86	1.76	1.10	1.51	1.35
May	<u>0.97</u>	<u>0.97</u>	<u>0.50</u>	<u>0.83</u>	<u>0.14</u>
Season Totals	7.10	6.00	1.60	5.61	1.94
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – March 30 (30 days)			
March	<u>2.18</u>	<u>2.18</u>	<u>0.00</u>	<u>1.87</u>	<u>0.31</u>
Season Totals	2.18	2.18	0.00	1.87	0.31
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - April 29 (60 days)			
March	1.79	1.79	0.00	1.54	0.25
April	<u>2.86</u>	<u>1.86</u>	<u>1.51</u>	<u>1.60</u>	<u>1.26</u>
Season Totals	4.65	3.65	1.51	3.14	1.51
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	1.61	1.61	0.00	1.38	0.23
April	3.20	1.80	1.40	1.55	1.65
May	<u>1.88</u>	<u>1.88</u>	<u>0.50</u>	<u>1.62</u>	<u>0.26</u>
Season Totals	6.69	5.29	1.90	4.55	2.14

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	1.53	1.53	0.00	1.32	0.21
April	3.15	1.79	1.35	1.54	1.61
May	3.77	2.02	1.74	1.74	2.03
June	<u>0.85</u>	<u>0.85</u>	<u>0.50</u>	<u>0.73</u>	<u>0.12</u>
Season Totals	9.30	6.19	3.59	5.32	3.98
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - April 30 (30 days)			
April	<u>2.92</u>	<u>2.16</u>	<u>0.75</u>	<u>1.86</u>	<u>1.06</u>
Season Totals	2.92	2.16	0.75	1.86	1.06
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	2.34	2.10	0.25	1.81	0.53
May	<u>3.90</u>	<u>2.49</u>	<u>1.91</u>	<u>2.14</u>	<u>1.76</u>
Season Totals	6.24	4.59	2.16	3.95	2.29
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.13	2.07	0.06	1.78	0.35
May	4.40	2.10	2.30	1.81	2.59
June	<u>2.27</u>	<u>2.27</u>	<u>0.50</u>	<u>1.95</u>	<u>0.32</u>
Season Totals	8.80	6.44	2.86	5.54	3.26
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.08</u>	<u>3.66</u>	<u>1.42</u>	<u>3.15</u>	<u>1.93</u>
Season Totals	5.08	3.66	1.42	3.15	1.93
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.17	3.48	0.70	2.99	1.18
September	<u>3.50</u>	<u>2.17</u>	<u>1.83</u>	<u>1.87</u>	<u>1.63</u>
Season Totals	7.67	5.65	2.53	4.86	2.81

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.75	3.40	0.36	2.92	0.83
September	4.35	2.71	1.64	2.33	2.02
October	<u>1.30</u>	<u>1.30</u>	<u>0.50</u>	<u>1.12</u>	<u>0.18</u>
Season Totals	9.40	7.41	2.50	6.37	3.03
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.56	3.36	0.20	2.89	0.67
September	4.28	2.70	1.58	2.32	1.96
October	2.69	1.61	1.08	1.38	1.31
November	<u>0.35</u>	<u>0.35</u>	<u>0.50</u>	<u>0.30</u>	<u>0.05</u>
Season Totals	10.88	8.02	3.36	6.90	3.98
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.23</u>	<u>2.99</u>	<u>1.24</u>	<u>2.57</u>	<u>1.66</u>
Season Totals	4.23	2.99	1.24	2.57	1.66
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.40	2.85	0.55	2.45	0.95
October	<u>2.49</u>	<u>1.68</u>	<u>1.31</u>	<u>1.44</u>	<u>1.05</u>
Season Totals	5.89	4.53	1.86	3.90	1.99
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.09	2.80	0.28	2.41	0.68
October	3.09	1.65	1.45	1.42	1.67
November	<u>0.88</u>	<u>0.88</u>	<u>0.50</u>	<u>0.76</u>	<u>0.12</u>
Season Totals	7.06	5.33	2.23	4.58	2.48
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 9 (100 days)			
September	2.94	2.78	0.16	2.39	0.55
October	3.03	1.64	1.39	1.41	1.62
November	1.76	1.67	0.09	1.44	0.32
December	<u>0.29</u>	<u>0.29</u>	<u>0.50</u>	<u>0.25</u>	<u>0.04</u>
Season Totals	8.02	6.38	2.14	5.49	2.53

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>3.16</u>	<u>2.09</u>	<u>1.07</u>	<u>1.80</u>	<u>1.36</u>
Season Totals	3.16	2.09	1.07	1.80	1.36
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	2.60	2.03	0.57	1.75	0.85
November	<u>1.64</u>	<u>1.64</u>	<u>0.50</u>	<u>1.41</u>	<u>0.23</u>
Season Totals	4.24	3.67	1.07	3.16	1.08
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	2.34	2.00	0.34	1.72	0.62
November	2.03	1.70	0.33	1.46	0.57
December	<u>0.64</u>	<u>0.64</u>	<u>0.50</u>	<u>0.55</u>	<u>0.09</u>
Season Totals	5.01	4.34	1.17	3.73	1.28
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.22	1.98	0.23	1.70	0.52
November	2.00	1.69	0.30	1.45	0.55
December	1.29	1.29	0.00	1.11	0.18
January	<u>0.22</u>	<u>0.22</u>	<u>0.50</u>	<u>0.19</u>	<u>0.03</u>
Season Totals	5.73	5.18	1.03	4.45	1.28
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>2.07</u>	<u>1.64</u>	<u>0.43</u>	<u>1.41</u>	<u>0.66</u>
Season Totals	2.07	1.64	0.43	1.41	0.66
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	1.66	1.60	0.06	1.38	0.28
December	<u>1.26</u>	<u>1.26</u>	<u>0.50</u>	<u>1.08</u>	<u>0.18</u>
Season Totals	2.92	2.86	0.56	2.46	0.46

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 1

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	1.51	1.51	0.00	1.30	0.21
December	1.51	1.51	0.00	1.30	0.21
January	<u>0.58</u>	<u>0.58</u>	<u>0.50</u>	<u>0.50</u>	<u>0.08</u>
Season Totals	3.60	3.60	0.50	3.10	0.50
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
December	1.44	1.44	0.00	1.24	0.20
January	1.48	1.48	0.00	1.27	0.21
February	1.16	1.16	0.00	1.00	0.16
March	<u>0.26</u>	<u>0.26</u>	<u>0.50</u>	<u>0.22</u>	<u>0.04</u>
Season Totals	4.34	4.34	0.50	3.73	0.61
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>1.54</u>	<u>1.54</u>	<u>0.00</u>	<u>1.32</u>	<u>0.22</u>
Season Totals	1.54	1.54	0.00	1.32	0.22
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	1.26	1.26	0.00	1.08	0.18
January	<u>1.14</u>	<u>1.14</u>	<u>0.50</u>	<u>0.98</u>	<u>0.16</u>
Season Totals	2.40	2.40	0.50	2.06	0.34
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	1.14	1.14	0.00	0.98	0.16
January	1.34	1.34	0.00	1.15	0.19
February	<u>0.66</u>	<u>0.66</u>	<u>0.50</u>	<u>0.57</u>	<u>0.09</u>
Season Totals	3.14	3.14	0.50	2.70	0.44
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - March 10 (100 days)			
December	1.08	1.08	0.00	0.93	0.15
January	1.31	1.31	0.00	1.13	0.18
February	1.29	1.29	0.00	1.11	0.18
March	<u>0.47</u>	<u>0.47</u>	<u>0.50</u>	<u>0.40</u>	<u>0.07</u>
Season Totals	4.15	4.15	0.50	3.57	0.58

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Blueberry</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.03	0.90	0.12	0.77	0.26
February	1.19	1.19	0.00	1.02	0.17
March	2.00	1.84	0.16	1.58	0.42
April	2.79	1.42	1.37	1.22	1.57
May	4.15	1.92	2.23	1.65	2.50
June	5.16	3.11	2.04	2.67	2.49
July	5.69	3.67	2.02	3.16	2.53
August	5.24	3.81	1.43	3.28	1.96
September	4.01	2.81	1.20	2.42	1.59
October	2.70	1.23	1.48	1.06	1.64
November	1.65	1.21	0.43	1.04	0.61
December	<u>1.10</u>	<u>1.10</u>	<u>0.50</u>	<u>0.95</u>	<u>0.15</u>
Season Totals	36.71	24.21	12.98	20.82	15.89
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.26	0.92	0.34	0.79	0.47
February	1.37	1.37	0.00	1.18	0.19
March	2.19	1.86	0.33	1.60	0.59
April	2.87	1.43	1.44	1.23	1.64
May	3.94	1.90	2.04	1.63	2.31
June	4.60	3.02	1.58	2.60	2.00
July	4.91	3.51	1.40	3.02	1.89
August	4.59	3.67	0.91	3.16	1.43
September	3.82	2.78	1.03	2.39	1.43
October	2.79	1.23	1.56	1.06	1.73
November	1.83	1.22	0.61	1.05	0.78
December	<u>1.34</u>	<u>1.34</u>	<u>0.50</u>	<u>1.15</u>	<u>0.19</u>
Season Totals	35.51	24.25	11.74	20.86	14.66
Crop: <u>Corn, grain</u>		Growing Season: Feb. 20 – June 20			
February	0.31	0.31	0.00	0.27	0.04
March	2.00	1.84	0.16	1.58	0.42
April	4.19	1.54	2.65	1.32	2.87
May	5.70	2.09	3.61	1.80	3.90
June	<u>3.26</u>	<u>2.78</u>	<u>0.98</u>	<u>2.39</u>	<u>0.87</u>
Season Totals	15.46	8.56	7.40	7.36	8.10

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Corn, sweet</u>		Growing Season: March 15 - June 15			
March	0.88	0.88	0.00	0.76	0.12
April	3.48	1.48	2.00	1.27	2.21
May	5.91	2.12	3.79	1.82	4.09
June	<u>3.18</u>	<u>2.66</u>	<u>1.03</u>	<u>2.29</u>	<u>0.89</u>
Season Totals	13.45	7.14	6.82	6.14	7.31
Crop: <u>Cotton</u>		Growing Season: April 15 - Oct. 15			
April	1.06	1.06	0.00	0.91	0.15
May	3.28	1.83	1.45	1.57	1.71
June	5.07	3.10	1.97	2.67	2.40
July	6.83	3.91	2.92	3.36	3.47
August	5.94	3.96	1.98	3.41	2.53
September	3.73	2.77	0.96	2.38	1.35
October	<u>0.99</u>	<u>0.99</u>	<u>0.50</u>	<u>0.85</u>	<u>0.14</u>
Season Totals	26.90	17.62	9.78	15.15	11.75
Crop: <u>Grain, spring</u>		Growing Season: November 1 – March 31			
November	1.64	1.19	0.45	1.02	0.62
December	2.12	1.59	0.53	1.37	0.75
January	2.54	1.77	0.77	1.52	1.02
February	1.85	1.85	0.01	1.59	0.26
March	<u>1.39</u>	<u>1.39</u>	<u>0.50</u>	<u>1.20</u>	<u>0.19</u>
Season Totals	9.54	7.79	2.26	6.70	2.84
Crop: <u>Grapes</u>		Growing Season: March 15 - June 30			
March	0.86	0.86	0.00	0.74	0.12
April	2.56	1.40	1.15	1.20	1.36
May	4.46	1.95	2.51	1.68	2.78
June	<u>3.61</u>	<u>3.06</u>	<u>1.05</u>	<u>2.63</u>	<u>0.98</u>
Season Totals	11.49	7.27	4.71	6.25	5.24

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Melons & cantaloupes</u>		Growing Season: March 15 - June 15			
March	0.86	0.86	0.00	0.74	0.12
April	3.12	1.45	1.67	1.25	1.87
May	4.96	2.01	2.95	1.73	3.23
June	<u>2.25</u>	<u>2.25</u>	<u>0.50</u>	<u>1.94</u>	<u>0.32</u>
Season Totals	11.19	6.57	5.12	5.65	5.54
Crop: <u>Orchards</u>		Growing Season: March 15 - Nov. 15			
March	1.12	1.12	0.00	0.96	0.16
April	3.30	1.46	1.83	1.26	2.04
May	5.45	2.06	3.39	1.77	3.68
June	7.10	3.47	3.63	2.98	4.12
July	7.61	4.08	3.53	3.51	4.10
August	6.59	4.11	2.48	3.53	3.06
September	4.88	2.95	1.93	2.54	2.34
October	2.95	1.24	1.70	1.07	1.88
November	<u>0.78</u>	<u>0.78</u>	<u>0.50</u>	<u>0.67</u>	<u>0.11</u>
Season Totals	39.78	21.27	18.99	18.29	21.49
Crop: <u>Pasture grasses</u>		Growing Season: March 1 - Nov. 30			
March	1.64	1.64	0.00	1.41	0.23
April	2.99	1.44	1.55	1.24	1.75
May	4.75	1.98	2.76	1.70	3.05
June	5.85	3.24	2.61	2.79	3.06
July	6.30	3.79	2.51	3.26	3.04
August	5.79	3.93	1.86	3.38	2.41
September	4.50	2.89	1.61	2.49	2.01
October	2.79	1.23	1.56	1.06	1.73
November	<u>1.46</u>	<u>1.37</u>	<u>0.59</u>	<u>1.18</u>	<u>0.28</u>
Season Totals	36.07	21.51	15.05	18.50	17.57

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Peanuts</u>		Growing Season: April 15 - Aug. 13			
April	1.05	1.05	0.00	0.90	0.15
May	3.34	1.83	1.51	1.57	1.77
June	5.47	3.17	2.30	2.73	2.74
July	7.25	4.00	3.25	3.44	3.81
August	<u>2.06</u>	<u>2.06</u>	<u>0.50</u>	<u>1.77</u>	<u>0.29</u>
Season Totals	19.17	12.11	7.56	10.41	8.76
Crop: <u>Potatoes, Irish</u>		Growing Season: Jan. 15 – May 15			
January	1.00	1.00	0.00	0.86	0.14
February	1.44	1.44	0.00	1.24	0.20
March	3.42	1.99	1.43	1.71	1.71
April	4.46	1.56	2.90	1.34	3.12
May	<u>2.57</u>	<u>1.90</u>	<u>1.16</u>	<u>1.63</u>	<u>0.94</u>
Season Totals	12.89	7.89	5.49	6.79	6.10
Crop: <u>Sorghum, grain</u>		Growing Season: April 1 - July 29			
April	2.19	1.62	0.57	1.39	0.80
May	5.42	2.06	3.36	1.77	3.65
June	6.20	3.30	2.90	2.84	3.36
July	<u>4.26</u>	<u>3.48</u>	<u>1.29</u>	<u>2.99</u>	<u>1.27</u>
Season Totals	18.07	10.46	8.12	9.00	9.07
Crop: <u>Soybeans</u>		Growing Season: May 1 - Sept. 17			
May	2.74	1.62	1.12	1.39	1.35
June	4.36	2.98	1.38	2.56	1.80
July	6.55	3.85	2.70	3.31	3.24
August	5.97	3.97	2.00	3.41	2.56
September	<u>2.12</u>	<u>2.12</u>	<u>0.50</u>	<u>1.82</u>	<u>0.30</u>
Season Totals	21.74	14.54	7.70	12.50	9.24

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Strawberries</u>		Growing Season: Nov. 15 - April 15			
November	0.85	0.85	0.00	0.73	0.12
December	1.96	1.57	0.39	1.35	0.61
January	2.12	1.73	0.39	1.49	0.63
February	2.37	1.90	0.47	1.63	0.74
March	3.47	2.00	1.47	1.72	1.75
April	<u>1.82</u>	<u>1.55</u>	<u>0.77</u>	1.33	0.49
Season Totals	12.59	9.60	3.49	8.26	4.33
Crop: <u>Tobacco</u>		Growing Season: March 15 – June 22			
March	0.92	0.92	0.00	0.79	0.13
April	3.78	1.50	2.28	1.29	2.49
May	5.84	2.11	3.73	1.81	4.03
June	<u>3.46</u>	<u>2.86</u>	<u>1.10</u>	<u>2.46</u>	<u>1.00</u>
Season Totals	14.00	7.39	7.11	6.36	7.64
Crop: <u>Tomatoes</u>		Growing Season: March 1 - June 11			
March	1.87	1.83	0.04	1.57	0.30
April	4.34	1.55	2.79	1.33	3.01
May	5.37	2.05	3.32	1.76	3.61
June	<u>1.63</u>	<u>1.63</u>	<u>0.50</u>	<u>1.40</u>	<u>0.23</u>
Season Totals	13.21	7.06	6.65	6.07	7.14
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>1.58</u>	<u>0.93</u>	<u>0.65</u>	<u>0.80</u>	<u>0.78</u>
Season Totals	1.58	0.93	0.65	0.80	0.78
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 1 (60 days)			
January	1.30	0.92	0.38	0.79	0.51
February	1.49	1.49	0.00	1.28	0.21
March	<u>0.05</u>	<u>0.05</u>	<u>0.50</u>	<u>0.04</u>	<u>0.01</u>
Season Totals	2.84	2.46	0.88	2.12	0.72

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	1.17	0.91	0.26	0.78	0.39
February	1.69	1.69	0.00	1.45	0.24
March	<u>1.29</u>	<u>1.29</u>	<u>0.50</u>	<u>1.11</u>	<u>0.18</u>
Season Totals	4.15	3.89	0.76	3.35	0.80
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - April 10 (100 days)			
January	1.11	0.91	0.20	0.78	0.33
February	1.65	1.65	0.00	1.42	0.23
March	2.36	1.88	0.48	1.62	0.74
April	<u>0.70</u>	<u>0.70</u>	<u>0.50</u>	<u>0.60</u>	<u>0.10</u>
Season Totals	5.82	5.14	1.18	4.42	1.40
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - March 2 (30 days)			
February	1.57	1.57	0.00	1.35	0.22
March	<u>0.10</u>	<u>0.10</u>	<u>0.50</u>	<u>0.09</u>	<u>0.01</u>
Season Totals	1.67	1.67	0.50	1.44	0.23
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	1.23	1.23	0.00	1.06	0.17
March	2.44	1.89	0.55	1.63	0.81
April	<u>0.07</u>	<u>0.07</u>	<u>0.50</u>	<u>0.06</u>	<u>0.01</u>
Season Totals	3.74	3.19	1.05	2.74	1.00
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 21 (80 days)			
February	1.14	1.14	0.00	0.98	0.16
March	2.64	1.91	0.73	1.64	1.00
April	<u>1.71</u>	<u>1.53</u>	<u>0.68</u>	<u>1.32</u>	<u>0.39</u>
Season Totals	5.49	4.58	1.41	3.94	1.55

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 – May 11 (100 days)			
February	1.08	1.08	0.00	0.93	0.15
March	2.57	1.90	0.67	1.63	0.94
April	3.01	1.44	1.57	1.24	1.77
May	<u>1.00</u>	<u>1.00</u>	<u>0.50</u>	<u>0.86</u>	<u>0.14</u>
Season Totals	7.66	5.42	2.74	4.66	3.00
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - March 30 (30 days)			
February	<u>2.42</u>	<u>1.89</u>	<u>0.53</u>	<u>1.63</u>	<u>0.79</u>
Season Totals	2.42	1.89	0.53	1.63	0.79
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – April 29 (60 days)			
March	1.98	1.84	0.14	1.58	0.40
April	<u>3.00</u>	<u>1.62</u>	<u>1.87</u>	<u>1.39</u>	<u>1.61</u>
Season Totals	4.98	3.46	2.01	2.98	2.00
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	1.78	1.78	0.00	1.53	0.25
April	3.37	1.47	1.90	1.26	2.11
May	<u>1.93</u>	<u>1.92</u>	<u>0.51</u>	<u>1.65</u>	<u>0.28</u>
Season Totals	7.08	5.17	2.41	4.45	2.63
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	1.69	1.69	0.00	1.45	0.24
April	3.31	1.47	1.85	1.26	2.05
May	3.87	1.89	1.98	1.63	2.24
June	<u>0.86</u>	<u>0.86</u>	<u>0.50</u>	<u>0.74</u>	<u>0.12</u>
Season Totals	9.73	5.91	4.33	5.08	4.65
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - April 30 (30 days)			
April	<u>3.10</u>	<u>1.70</u>	<u>1.39</u>	<u>1.46</u>	<u>1.64</u>
Season Totals	3.10	1.70	1.39	1.46	1.64

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	2.49	1.65	0.84	1.42	1.07
May	<u>3.99</u>	<u>2.40</u>	<u>2.09</u>	<u>2.06</u>	<u>1.93</u>
Season Totals	6.48	4.05	2.93	3.48	3.00
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.26	1.63	0.63	1.40	0.86
May	4.52	1.96	2.56	1.69	2.83
June	<u>2.29</u>	<u>2.29</u>	<u>0.50</u>	<u>1.97</u>	<u>0.32</u>
Season Totals	9.07	5.88	3.69	5.06	4.01
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.12</u>	<u>3.66</u>	<u>1.46</u>	<u>3.15</u>	<u>1.97</u>
Season Totals	5.12	3.66	1.46	3.15	1.97
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.20	3.48	0.73	2.99	1.21
September	<u>3.64</u>	<u>2.09</u>	<u>2.05</u>	<u>1.80</u>	<u>1.84</u>
Season Totals	7.84	5.57	2.78	4.79	3.05
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.78	3.40	0.38	2.92	0.86
September	4.48	2.89	1.59	2.49	1.99
October	<u>1.41</u>	<u>1.41</u>	<u>0.50</u>	<u>1.21</u>	<u>0.20</u>
Season Totals	9.67	7.70	2.47	6.62	3.05
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.59	3.36	0.23	2.89	0.70
September	4.41	2.88	1.53	2.48	1.93
October	2.92	1.24	1.68	1.07	1.85
November	<u>0.39</u>	<u>0.39</u>	<u>0.50</u>	<u>0.34</u>	<u>0.05</u>
Season Totals	11.31	7.87	3.94	6.77	4.54

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.34</u>	<u>3.21</u>	<u>1.12</u>	<u>2.76</u>	<u>1.58</u>
Season Totals	4.34	3.21	1.12	2.76	1.58
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.49	3.06	0.42	2.63	0.86
October	<u>2.72</u>	<u>1.28</u>	<u>1.94</u>	<u>1.10</u>	<u>1.62</u>
Season Totals	6.21	4.34	2.36	3.73	2.48
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.17	3.01	0.16	2.59	0.58
October	3.36	1.27	2.09	1.09	2.27
November	<u>0.99</u>	<u>0.99</u>	<u>0.50</u>	<u>0.85</u>	<u>0.14</u>
Season Totals	7.52	5.27	2.75	4.53	2.99
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 19 (100 days)			
September	2.96	2.96	0.00	2.55	0.41
October	3.24	1.26	1.98	1.08	2.16
November	2.16	1.25	0.91	1.08	1.09
December	<u>0.69</u>	<u>0.69</u>	<u>0.50</u>	<u>0.59</u>	<u>0.10</u>
Season Totals	9.05	6.16	3.39	5.30	3.75
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>3.40</u>	<u>2.00</u>	<u>1.40</u>	<u>1.72</u>	<u>1.68</u>
Season Totals	3.40	2.00	1.40	1.72	1.68
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	2.79	1.93	0.86	1.66	1.13
November	<u>1.86</u>	<u>1.39</u>	<u>0.97</u>	<u>1.20</u>	<u>0.66</u>
Season Totals	4.65	3.32	1.83	2.86	1.79

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	2.51	1.90	0.61	1.63	0.88
November	2.28	1.25	1.03	1.08	1.21
December	<u>0.74</u>	<u>0.74</u>	<u>0.50</u>	<u>0.64</u>	<u>0.10</u>
Season Totals	5.53	3.89	2.14	3.35	2.18
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.38	1.89	0.49	1.63	0.75
November	2.24	1.25	0.99	1.08	1.17
December	1.49	1.49	0.00	1.28	0.21
January	<u>0.26</u>	<u>0.26</u>	<u>0.50</u>	<u>0.22</u>	<u>0.04</u>
Season Totals	6.37	4.89	1.98	4.21	2.16
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>2.31</u>	<u>1.23</u>	<u>1.07</u>	<u>1.06</u>	<u>1.25</u>
Season Totals	2.31	1.23	1.07	1.06	1.25
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	1.86	1.20	0.65	1.03	0.83
December	<u>1.46</u>	<u>1.46</u>	<u>0.50</u>	<u>1.26</u>	<u>0.20</u>
Season Totals	3.32	2.66	1.15	2.29	1.03
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	1.69	1.19	0.49	1.02	0.67
December	1.74	1.55	0.18	1.33	0.41
January	<u>0.69</u>	<u>0.69</u>	<u>0.50</u>	<u>0.59</u>	<u>0.10</u>
Season Totals	4.12	3.43	1.17	2.95	1.17
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
November	1.60	1.19	0.42	1.02	0.58
December	1.71	1.55	0.16	1.33	0.38
January	1.38	1.38	0.00	1.19	0.19
February	<u>0.30</u>	<u>0.30</u>	<u>0.50</u>	<u>0.26</u>	<u>0.04</u>
Season Totals	4.99	4.42	1.08	3.80	1.19

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 2

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>1.76</u>	<u>1.40</u>	<u>0.37</u>	<u>1.20</u>	<u>0.56</u>
Season Totals	1.76	1.40	0.37	1.20	0.56
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	1.45	1.37	0.08	1.18	0.27
January	<u>1.34</u>	<u>1.34</u>	<u>0.50</u>	<u>1.15</u>	<u>0.19</u>
Season Totals	2.79	2.71	0.58	2.33	0.46
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	1.30	1.30	0.00	1.12	0.18
January	1.59	1.59	0.00	1.37	0.22
February	<u>0.75</u>	<u>0.75</u>	<u>0.50</u>	<u>0.65</u>	<u>0.11</u>
Season Totals	3.64	3.64	0.50	3.13	0.51
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - March 31 (100 days)			
December	1.19	1.19	0.00	1.02	0.17
January	1.50	1.50	0.00	1.29	0.21
February	1.66	1.66	0.00	1.43	0.23
March	<u>1.94</u>	<u>1.60</u>	<u>0.84</u>	<u>1.38</u>	<u>0.56</u>
Season Totals	6.29	5.95	0.84	5.12	1.17

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.54	0.74	0.80	0.64	0.90
February	1.62	1.56	0.06	1.34	0.28
March	2.44	1.68	0.76	1.44	1.00
April	3.07	1.12	1.95	0.96	2.11
May	4.09	1.95	2.14	1.68	2.41
June	4.66	3.40	1.26	2.92	1.74
July	4.92	3.60	1.33	3.10	1.82
August	4.62	3.60	1.02	3.10	1.52
September	3.95	2.98	0.97	2.56	1.39
October	3.07	1.34	1.73	1.15	1.92
November	2.10	1.19	0.91	1.02	1.08
December	<u>1.61</u>	<u>1.26</u>	<u>0.85</u>	<u>1.08</u>	<u>0.53</u>
Season Totals	37.69	24.42	13.78	21.00	16.69
Crop: <u>Corn, grain</u>		Growing Season: Feb. 1 – May 31			
February	1.25	1.25	0.00	1.08	0.18
March	3.18	1.75	1.43	1.51	1.68
April	4.73	1.23	3.50	1.06	3.67
May	<u>5.06</u>	<u>2.79</u>	<u>2.77</u>	<u>2.40</u>	<u>2.66</u>
Season Totals	14.22	7.02	7.70	6.04	8.18
Crop: <u>Corn, sweet</u>		Growing Season: March 1 – May 31			
March	1.97	1.60	0.37	1.38	0.59
April	4.65	1.22	3.42	1.05	3.60
May	<u>6.09</u>	<u>2.95</u>	<u>3.63</u>	<u>2.54</u>	<u>3.55</u>
Season Totals	12.71	5.77	7.42	4.96	7.75
Crop: <u>Grapes</u>		Growing Season: March 1 - June 30			
March	1.79	1.59	0.20	1.37	0.42
April	3.06	1.12	1.94	0.96	2.10
May	4.46	1.99	2.47	1.71	2.75
June	<u>3.57</u>	<u>3.27</u>	<u>0.80</u>	<u>2.81</u>	<u>0.76</u>
Season Totals	12.88	7.97	5.41	6.85	6.03

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Melons & cantaloupes</u>		Growing Season: Feb. 20 – May 21			
February	0.36	0.36	0.00	0.31	0.05
March	2.35	1.67	0.68	1.44	0.91
April	4.09	1.19	2.91	1.02	3.07
May	<u>2.90</u>	<u>2.16</u>	<u>1.24</u>	<u>1.86</u>	<u>1.04</u>
Season Totals	9.70	5.38	4.83	4.63	5.07
Crop: <u>Orchards</u>		Growing Season: March 1 - Nov. 30			
March	2.35	1.64	0.71	1.41	0.94
April	3.80	1.17	2.63	1.01	2.79
May	5.85	2.15	3.69	1.85	4.00
June	7.24	3.93	3.31	3.38	3.86
July	7.63	4.18	3.45	3.59	4.04
August	6.72	4.05	2.67	3.48	3.24
September	5.26	3.21	2.05	2.76	2.50
October	3.52	1.37	2.15	1.18	2.34
November	<u>1.83</u>	<u>1.18</u>	<u>1.14</u>	<u>1.01</u>	<u>0.82</u>
Season Totals	44.20	22.88	21.80	19.68	24.52
Crop: <u>Pasture grasses</u>		Growing Season: Feb. 15 - Dec. 15			
February	0.60	0.60	0.00	0.52	0.08
March	2.13	1.65	0.48	1.42	0.71
April	3.47	1.15	2.33	0.99	2.48
May	5.03	2.06	2.97	1.77	3.26
June	5.94	3.66	2.29	3.15	2.79
July	6.32	3.89	2.43	3.35	2.97
August	5.88	3.86	2.01	3.32	2.56
September	4.81	3.13	1.68	2.69	2.12
October	3.29	1.35	1.94	1.16	2.13
November	1.85	1.17	0.68	1.01	0.84
December	<u>0.67</u>	<u>0.67</u>	<u>0.50</u>	<u>0.58</u>	<u>0.09</u>
Season Totals	39.99	23.19	17.31	19.94	20.05

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Sorghum, grain</u>		Growing Season: April 1 - July 31			
April	2.35	1.38	0.97	1.19	1.16
May	5.57	2.12	3.45	1.82	3.75
June	6.34	3.74	2.60	3.22	3.12
July	<u>4.64</u>	<u>3.57</u>	<u>1.56</u>	<u>3.07</u>	<u>1.57</u>
Season Totals	18.90	10.81	8.58	9.30	9.60
Crop: <u>Soybeans</u>		Growing Season: June 1 - Oct. 18			
June	3.23	2.54	0.69	2.18	1.05
July	4.64	3.54	1.10	3.04	1.60
August	6.31	3.96	2.35	3.41	2.90
September	5.28	3.21	2.07	2.76	2.52
October	<u>1.81</u>	<u>1.54</u>	<u>0.77</u>	<u>1.32</u>	<u>0.49</u>
Season Totals	21.27	14.79	6.98	12.72	8.55
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>1.94</u>	<u>0.76</u>	<u>1.18</u>	<u>0.65</u>	<u>1.29</u>
Season Totals	1.94	0.76	1.18	0.65	1.29
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 1 (60 days)			
January	1.59	0.74	0.85	0.64	0.95
February	1.77	1.57	0.19	1.35	0.42
March	<u>0.06</u>	<u>0.06</u>	<u>0.50</u>	<u>0.05</u>	<u>0.01</u>
Season Totals	3.42	2.37	1.54	2.04	1.38
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	1.43	0.74	0.69	0.64	0.79
February	2.00	1.59	0.41	1.37	0.63
March	<u>1.44</u>	<u>1.39</u>	<u>0.54</u>	<u>1.20</u>	<u>0.24</u>
Season Totals	4.87	3.72	1.64	3.20	1.67

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop:	<u>Vegetables, small</u>	Growing Season: Jan. 1 - April 10 (100 days)			
January	1.36	0.73	0.62	0.63	0.73
February	1.96	1.59	0.37	1.37	0.59
March	2.63	1.70	0.93	1.46	1.17
April	<u>0.75</u>	<u>0.75</u>	<u>0.50</u>	<u>0.65</u>	<u>0.11</u>
Season Totals	6.70	4.77	2.42	4.10	2.60
Crop:	<u>Vegetables, small</u>	Growing Season: Feb. 1 - March 2 (30 days)			
February	1.87	1.48	0.39	1.27	0.60
March	<u>0.11</u>	<u>0.11</u>	<u>0.50</u>	<u>0.09</u>	<u>0.02</u>
Season Totals	1.98	1.59	0.89	1.37	0.61
Crop:	<u>Vegetables, small</u>	Growing Season: Feb. 1 - April 1 (60 days)			
February	1.47	1.45	0.02	1.25	0.22
March	2.72	1.71	1.02	1.47	1.25
April	<u>0.07</u>	<u>0.07</u>	<u>0.50</u>	<u>0.06</u>	<u>0.01</u>
Season Totals	4.26	3.23	1.54	2.78	1.48
Crop:	<u>Vegetables, small</u>	Growing Season: Feb. 1 - April 21 (80 days)			
February	1.35	1.35	0.00	1.16	0.19
March	2.94	1.73	1.22	1.49	1.45
April	<u>1.83</u>	<u>1.38</u>	<u>0.96</u>	<u>1.19</u>	<u>0.64</u>
Season Totals	6.12	4.46	2.18	3.84	2.28
Crop:	<u>Vegetables, small</u>	Growing Season: Feb. 1 - May 11 (100 days)			
February	1.29	1.29	0.00	1.11	0.18
March	2.86	1.72	1.14	1.48	1.38
April	3.22	1.13	2.09	0.97	2.25
May	<u>1.04</u>	<u>1.04</u>	<u>0.50</u>	<u>0.89</u>	<u>0.15</u>
Season Totals	8.41	5.18	3.73	4.45	3.96
Crop:	<u>Vegetables, small</u>	Growing Season: March 1 - March 30 (30 days)			
February	<u>2.76</u>	<u>1.60</u>	<u>1.16</u>	<u>1.38</u>	<u>1.38</u>
Season Totals	2.76	1.60	1.16	1.38	1.38

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>3</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - April 30 (60 days)			
March	2.22	1.63	0.59	1.40	0.82
April	<u>3.29</u>	<u>1.51</u>	<u>2.28</u>	<u>1.30</u>	<u>1.99</u>
Season Totals	5.51	3.14	2.87	2.70	2.81
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – May 19 (80 days)			
March	2.01	1.61	0.40	1.38	0.63
April	3.61	1.16	2.45	1.00	2.61
May	<u>2.00</u>	<u>2.00</u>	<u>0.50</u>	<u>1.72</u>	<u>0.28</u>
Season Totals	7.62	4.77	3.35	4.10	3.52
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – June 8 (100 days)			
March	1.91	1.60	0.31	1.38	0.53
April	3.55	1.15	2.4	0.99	2.56
May	4.02	1.95	2.08	1.68	2.34
June	<u>0.87</u>	<u>0.87</u>	<u>0.50</u>	<u>0.75</u>	<u>0.12</u>
Season Totals	10.35	5.57	5.29	4.79	5.56
Crop: <u>Vegetables, small</u>		Growing Season: April 1 – April 30 (30 days)			
April	<u>3.34</u>	<u>1.46</u>	<u>1.88</u>	<u>1.26</u>	<u>2.08</u>
Season Totals	3.34	1.46	1.88	1.26	2.08
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	2.68	1.41	1.27	1.21	1.47
May	<u>4.12</u>	<u>2.61</u>	<u>2.01</u>	<u>2.24</u>	<u>1.88</u>
Season Totals	6.80	4.02	3.28	3.46	3.34
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.44	1.39	1.05	1.20	1.24
May	4.70	2.02	2.68	1.74	2.96
June	<u>2.32</u>	<u>2.32</u>	<u>0.50</u>	<u>2.00</u>	<u>0.32</u>
Season Totals	9.46	5.73	4.23	4.93	4.53

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.15</u>	<u>3.67</u>	<u>1.48</u>	<u>3.16</u>	<u>1.99</u>
Season Totals	5.15	3.67	1.48	3.16	1.99
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.23	3.49	0.75	3.00	1.23
September	<u>3.81</u>	<u>2.24</u>	<u>2.07</u>	<u>1.93</u>	<u>1.88</u>
Season Totals	8.04	5.73	2.82	4.93	3.11
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.81	3.40	0.40	2.92	0.89
September	4.64	3.10	1.54	2.67	1.97
October	<u>1.54</u>	<u>1.49</u>	<u>0.55</u>	<u>1.28</u>	<u>0.26</u>
Season Totals	9.99	7.99	2.49	6.87	3.12
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.61	3.37	0.24	2.90	0.71
September	4.56	3.08	1.48	2.65	1.91
October	3.20	1.35	1.86	1.16	2.04
November	<u>0.45</u>	<u>0.45</u>	<u>0.50</u>	<u>0.39</u>	<u>0.06</u>
Season Totals	11.82	8.25	4.08	7.10	4.73
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.47</u>	<u>3.29</u>	<u>1.18</u>	<u>2.83</u>	<u>1.64</u>
Season Totals	4.47	3.29	1.18	2.83	1.64
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.59	3.13	0.46	2.69	0.90
October	<u>3.01</u>	<u>1.32</u>	<u>2.19</u>	<u>1.14</u>	<u>1.87</u>
Season Totals	6.60	4.45	2.65	3.83	2.77

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.26	3.07	0.19	2.64	0.62
October	3.69	1.38	2.30	1.19	2.50
November	<u>1.14</u>	<u>1.14</u>	<u>0.50</u>	<u>0.98</u>	<u>0.16</u>
Season Totals	8.09	5.59	2.99	4.81	3.28
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 9 (100 days)			
September	3.10	3.05	0.06	2.62	0.48
October	3.61	1.38	2.23	1.19	2.42
November	2.27	1.20	1.07	1.03	1.24
December	<u>0.39</u>	<u>0.39</u>	<u>0.50</u>	<u>0.34</u>	<u>0.05</u>
Season Totals	9.37	6.02	3.86	5.18	4.19
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>3.69</u>	<u>2.16</u>	<u>1.53</u>	<u>1.86</u>	<u>1.83</u>
Season Totals	3.69	2.16	1.53	1.86	1.83
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	3.03	2.09	0.95	1.80	1.23
November	<u>2.14</u>	<u>1.20</u>	<u>1.44</u>	<u>1.03</u>	<u>1.11</u>
Season Totals	5.17	3.29	2.39	2.83	2.34
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	2.72	2.05	0.67	1.76	0.96
November	2.62	1.22	1.39	1.05	1.57
December	<u>0.89</u>	<u>0.89</u>	<u>0.50</u>	<u>0.77</u>	<u>0.12</u>
Season Totals	6.23	4.16	2.56	3.58	2.65
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.59	2.03	0.55	1.75	0.84
November	2.57	1.22	1.35	1.05	1.52
December	1.79	1.19	0.60	1.02	0.77
January	<u>0.32</u>	<u>0.32</u>	<u>0.50</u>	<u>0.28</u>	<u>0.04</u>
Season Totals	7.27	4.76	3.00	4.09	3.18

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>2.63</u>	<u>1.26</u>	<u>1.36</u>	<u>1.08</u>	<u>1.55</u>
Season Totals	2.63	1.26	1.36	1.08	1.55
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	2.11	1.23	0.88	1.06	1.05
December	<u>1.76</u>	<u>1.27</u>	<u>0.99</u>	<u>1.09</u>	<u>0.67</u>
Season Totals	3.87	2.50	1.87	2.15	1.72
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	1.92	1.22	0.70	1.05	0.87
December	2.09	1.21	0.88	1.04	1.05
January	<u>0.84</u>	<u>0.84</u>	<u>0.50</u>	<u>0.72</u>	<u>0.12</u>
Season Totals	4.85	3.27	2.08	2.81	2.04
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
November	1.83	1.21	0.62	1.04	0.79
December	2.06	1.21	0.85	1.04	1.02
January	1.69	1.35	0.34	1.16	0.53
February	<u>0.36</u>	<u>0.36</u>	<u>0.50</u>	<u>0.31</u>	<u>0.05</u>
Season Totals	5.94	4.13	2.31	3.55	2.39
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>2.10</u>	<u>1.20</u>	<u>0.90</u>	<u>1.03</u>	<u>1.07</u>
Season Totals	2.10	1.20	0.90	1.03	1.07
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	1.73	1.18	0.55	1.01	0.72
January	<u>1.63</u>	<u>1.44</u>	<u>0.69</u>	<u>1.24</u>	<u>0.39</u>
Season Totals	3.36	2.62	1.24	2.25	1.11

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 3

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	1.55	1.17	0.39	1.01	0.54
January	1.95	1.37	0.58	1.18	0.77
February	<u>0.88</u>	<u>0.88</u>	<u>0.50</u>	<u>0.76</u>	<u>0.12</u>
Season Totals	4.38	3.42	1.47	2.94	1.44
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - March 31 (100 days)			
December	1.42	1.16	0.26	1.00	0.42
January	1.83	1.36	0.47	1.17	0.66
February	1.97	1.59	0.38	1.37	0.60
March	<u>2.15</u>	<u>1.36</u>	<u>1.28</u>	<u>1.17</u>	<u>0.98</u>
Season Totals	7.37	5.47	2.39	4.70	2.67

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Blueberries</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.42	0.58	0.84	0.50	0.92
February	1.56	1.37	0.19	1.18	0.38
March	2.37	1.51	0.86	1.30	1.07
April	3.09	0.83	2.26	0.71	2.38
May	4.40	2.01	2.39	1.73	2.67
June	5.23	3.54	1.69	3.04	2.19
July	5.69	3.75	1.94	3.23	2.47
August	5.32	3.78	1.53	3.25	2.07
September	4.24	3.16	1.08	2.72	1.52
October	3.13	1.47	1.66	1.26	1.87
November	2.06	1.09	0.97	0.94	1.12
December	<u>1.48</u>	<u>1.03</u>	<u>0.95</u>	<u>0.89</u>	<u>0.59</u>
Season Totals	39.99	24.12	16.36	20.74	19.25
Crop: <u>Cabbage</u>		Growing Season: Feb. 1 - May 15			
February	1.35	1.21	0.14	1.04	0.31
March	2.79	1.55	1.25	1.33	1.46
April	4.53	0.90	3.62	0.77	3.76
May	<u>2.47</u>	<u>1.88</u>	<u>1.09</u>	<u>1.62</u>	<u>0.85</u>
Season Totals	11.14	5.54	6.10	4.76	6.38
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.74	0.59	1.15	0.51	1.23
February	1.79	1.39	0.40	1.20	0.59
March	2.59	1.53	1.07	1.32	1.27
April	3.17	0.84	2.33	0.72	2.45
May	4.17	1.98	2.19	1.70	2.47
June	4.67	3.43	1.24	2.95	1.72
July	4.91	3.59	1.33	3.09	1.82
August	4.65	3.65	1.01	3.14	1.51
September	4.04	3.13	0.91	2.69	1.35
October	3.24	1.48	1.76	1.27	1.97
November	2.29	1.10	1.19	0.95	1.34
December	<u>1.80</u>	<u>1.05</u>	<u>1.25</u>	<u>0.90</u>	<u>0.90</u>
Season Totals	39.06	23.76	15.83	20.43	18.63

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>4</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Corn, grain</u>		Growing Season: Feb. 1 – May 31			
February	1.39	1.21	0.17	1.04	0.35
March	3.38	1.60	1.78	1.38	2.00
April	4.89	0.92	3.96	0.79	4.10
May	<u>5.14</u>	<u>2.83</u>	<u>2.81</u>	<u>2.43</u>	<u>2.71</u>
Season Totals	14.80	6.56	8.72	5.64	9.16
Crop: <u>Corn, sweet</u>		Growing Season: March 1 - May 31			
March	2.11	1.44	0.67	1.24	0.87
April	4.80	0.92	3.88	0.79	4.01
May	<u>6.18</u>	<u>3.00</u>	<u>3.69</u>	<u>2.58</u>	<u>3.60</u>
Season Totals	13.09	5.36	8.24	4.61	8.48
Crop: <u>Melons & cantaloupes</u>		Growing Season: Jan. 1 – May 30			
January	1.39	0.57	0.82	0.49	0.90
February	1.87	1.39	0.48	1.20	0.67
March	3.49	1.61	1.88	1.38	2.11
April	4.05	0.88	3.17	0.76	3.29
May	<u>4.17</u>	<u>2.64</u>	<u>2.03</u>	<u>3.83</u>	<u>6.97</u>
Season Totals	14.97	7.09	8.38	7.65	13.95
Crop: <u>Melons & cantaloupes</u>		Growing Season: Feb. 1 - May 15			
February	1.39	1.21	0.18	1.04	0.35
March	3.30	1.59	1.71	1.37	1.93
April	4.02	0.88	3.14	0.76	3.26
May	<u>1.98</u>	<u>1.83</u>	<u>0.65</u>	<u>3.16</u>	<u>5.55</u>
Season Totals	10.69	5.51	5.68	6.33	11.09
Crop: <u>Melons & cantaloupes</u>		Growing Season: Feb. 15 – May 20			
February	0.65	0.65	0.00	0.56	0.09
March	2.66	1.53	1.13	1.32	1.34
April	4.18	0.89	3.29	0.77	3.41
May	<u>2.75</u>	<u>2.09</u>	<u>1.16</u>	<u>2.64</u>	<u>4.85</u>
Season Totals	10.24	5.16	5.58	5.28	9.70

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Pasture grasses</u>		Growing Season: Feb. 1 - Dec. 31			
February	1.39	1.21	0.17	1.04	0.35
March	2.49	1.52	0.97	1.31	1.18
April	3.71	0.86	2.84	0.74	2.97
May	5.17	2.10	3.07	1.81	3.36
June	5.97	3.69	2.28	3.17	2.80
July	6.31	3.88	2.43	3.34	2.97
August	5.93	3.92	2.01	3.37	2.56
September	4.97	3.29	1.68	2.83	2.14
October	3.64	1.52	2.13	1.31	2.33
November	2.22	1.10	1.12	0.95	1.27
December	<u>1.54</u>	<u>1.04</u>	<u>1.00</u>	<u>0.89</u>	<u>0.65</u>
Season Totals	43.34	24.13	19.70	20.75	22.59
Crop: <u>Potatoes</u>		Growing Season: Oct. 1 - Jan. 31			
October	2.56	2.15	0.41	1.85	0.71
November	3.21	1.16	2.06	1.00	2.21
December	3.13	1.11	2.02	0.95	2.18
January	<u>2.77</u>	<u>1.30</u>	<u>1.97</u>	<u>1.12</u>	<u>1.65</u>
Season Totals	11.67	5.72	6.46	4.92	6.75
Crop: <u>Potatoes</u>		Growing Season: Dec. 1 - March 31			
December	1.55	1.03	0.51	0.89	0.66
January	2.50	1.12	1.39	0.96	1.54
February	2.96	1.48	1.48	1.27	1.69
March	<u>4.03</u>	<u>1.28</u>	<u>3.25</u>	<u>1.10</u>	<u>2.93</u>
Season Totals	11.04	4.91	6.63	4.22	6.82
Crop: <u>Strawberries</u>		Growing Season: Oct. 1 - March 15			
October	3.37	2.25	1.12	1.94	1.44
November	3.50	1.18	2.33	1.01	2.49
December	3.15	1.11	2.04	0.95	2.20
January	3.07	1.15	1.91	0.99	2.08
February	2.83	1.47	1.36	1.26	1.57
March	<u>1.61</u>	<u>1.27</u>	<u>0.84</u>	<u>1.09</u>	<u>0.52</u>
Season Totals	17.53	8.43	9.60	7.25	10.28

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>4</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Tomatoes</u>		Growing Season: Jan. 15 – April 15			
January	1.46	0.88	0.57	0.76	0.70
February	2.58	1.45	1.13	1.25	1.33
March	3.98	1.65	2.33	1.42	2.56
April	<u>1.73</u>	<u>1.20</u>	<u>1.03</u>	<u>1.03</u>	<u>0.70</u>
Season Totals	9.75	5.18	5.06	4.45	5.30
Crop: <u>Tomatoes</u>		Growing Season: Aug. 1 - March 1			
August	3.40	3.34	0.06	2.87	0.53
September	4.30	3.17	1.13	2.73	1.57
October	4.67	1.61	3.07	1.38	3.29
November	3.76	1.19	2.56	1.02	2.74
December	2.98	1.10	1.88	0.95	2.03
January	2.50	1.12	1.38	0.96	1.54
February	1.96	1.40	0.56	1.20	0.76
March	<u>0.07</u>	<u>0.07</u>	<u>0.50</u>	<u>0.06</u>	<u>0.01</u>
Season Totals	23.64	13.00	11.14	11.18	12.46
Crop: <u>Tomatoes</u>		Growing Season: Aug. 1 - Dec. 7			
August	3.68	3.40	0.28	2.92	0.76
September	5.67	3.42	2.25	2.94	2.73
October	5.08	1.64	3.44	1.41	3.67
November	3.06	1.15	1.91	0.99	2.07
December	<u>0.43</u>	<u>0.43</u>	<u>0.50</u>	<u>0.37</u>	<u>0.06</u>
Season Totals	17.92	10.04	8.38	8.63	9.29
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>2.18</u>	<u>0.60</u>	<u>1.58</u>	<u>0.52</u>	<u>1.66</u>
Season Totals	2.18	0.60	1.58	0.52	1.66
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 1 (60 days)			
January	1.79	0.59	1.21	0.51	1.28
February	1.95	1.40	0.55	1.20	0.75
March	<u>0.06</u>	<u>0.06</u>	<u>0.50</u>	<u>0.05</u>	<u>0.01</u>
Season Totals	3.80	2.05	2.26	1.76	2.04

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	1.61	0.58	1.03	0.50	1.11
February	2.21	1.42	0.79	1.22	0.99
March	<u>1.53</u>	<u>1.21</u>	<u>0.82</u>	<u>1.04</u>	<u>0.49</u>
Season Totals	5.35	3.21	2.64	2.76	2.59
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - April 10 (100 days)			
January	1.53	0.58	0.95	0.50	1.03
February	2.16	1.42	0.75	1.22	0.94
March	2.80	1.55	1.25	1.33	1.47
April	<u>0.77</u>	<u>0.77</u>	<u>0.50</u>	<u>0.66</u>	<u>0.11</u>
Season Totals	7.26	4.32	3.45	3.72	3.54
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 – March 2 (30 days)			
February	2.07	1.26	0.81	1.08	0.99
March	<u>0.12</u>	<u>0.12</u>	<u>0.50</u>	<u>0.10</u>	<u>0.02</u>
Season Totals	2.19	1.38	1.31	1.19	1.00
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	1.63	1.23	0.40	1.06	0.57
March	2.89	1.55	1.34	1.33	1.56
April	<u>0.07</u>	<u>0.07</u>	<u>0.50</u>	<u>0.06</u>	<u>0.01</u>
Season Totals	4.59	2.85	2.24	2.45	2.14
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 21 (80 days)			
February	1.50	1.22	0.28	1.05	0.45
March	3.13	1.57	1.55	1.35	1.78
April	<u>1.89</u>	<u>1.24</u>	<u>1.15</u>	<u>1.07</u>	<u>0.82</u>
Season Totals	6.52	4.03	2.98	3.47	3.05

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>4</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - May 11 (100 days)			
February	1.43	1.21	0.21	1.04	0.39
March	3.04	1.57	1.47	1.35	1.69
April	3.33	0.84	2.49	0.72	2.61
May	<u>1.06</u>	<u>1.06</u>	<u>0.50</u>	<u>0.91</u>	<u>0.15</u>
Season Totals	8.86	4.68	4.67	4.02	4.84
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - March 30 (30 days)			
February	<u>2.91</u>	<u>1.51</u>	<u>1.40</u>	<u>1.30</u>	<u>1.61</u>
Season Totals	2.91	1.51	1.40	1.30	1.61
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – April 29 (60 days)			
March	2.39	1.46	0.92	1.26	1.13
April	<u>3.29</u>	<u>1.38</u>	<u>2.41</u>	<u>1.19</u>	<u>2.10</u>
Season Totals	5.68	2.84	3.33	2.44	3.24
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	2.15	1.44	0.70	1.24	0.91
April	3.73	0.86	2.86	0.74	2.99
May	<u>2.04</u>	<u>1.97</u>	<u>0.56</u>	<u>1.69</u>	<u>0.35</u>
Season Totals	7.92	4.27	4.12	3.67	4.25
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	2.04	1.43	0.60	1.23	0.81
April	3.67	0.86	2.8	0.74	2.93
May	4.10	1.98	2.12	1.70	2.40
June	<u>0.87</u>	<u>0.87</u>	<u>0.50</u>	<u>0.75</u>	<u>0.12</u>
Season Totals	10.68	5.14	6.02	4.42	6.26
Crop: <u>Vegetables, small</u>		Growing Season: April 1 – April 30 (30 days)			
April	<u>3.46</u>	<u>1.24</u>	<u>2.22</u>	<u>1.07</u>	<u>2.39</u>
Season Totals	3.46	1.24	2.22	1.07	2.39

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	2.78	1.20	1.58	1.03	1.75
May	<u>4.19</u>	<u>2.64</u>	<u>2.04</u>	<u>2.27</u>	<u>1.92</u>
Season Totals	6.97	3.84	3.62	3.30	3.67
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.53	1.18	1.35	1.01	1.52
May	4.79	2.05	2.73	1.76	3.03
June	<u>2.32</u>	<u>2.32</u>	<u>0.50</u>	<u>2.00</u>	<u>0.32</u>
Season Totals	9.64	5.55	4.58	4.77	4.87
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	5.18	<u>3.69</u>	<u>1.49</u>	<u>3.17</u>	<u>2.01</u>
Season Totals	5.18	3.69	1.49	3.17	2.01
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.26	3.51	0.75	3.02	1.24
September	<u>3.91</u>	<u>2.38</u>	<u>2.03</u>	<u>2.05</u>	<u>1.86</u>
Season Totals	8.17	5.89	2.78	5.07	3.10
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.83	3.42	0.40	2.94	0.89
September	4.74	3.25	1.49	2.80	1.95
October	<u>1.63</u>	<u>1.55</u>	<u>0.58</u>	<u>1.33</u>	<u>0.30</u>
Season Totals	10.20	8.22	2.47	7.07	3.13
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.63	3.39	0.24	2.92	0.71
September	4.66	3.24	1.42	2.79	1.87
October	3.38	1.49	1.89	1.28	2.10
November	<u>0.49</u>	<u>0.49</u>	<u>0.50</u>	<u>0.42</u>	<u>0.07</u>
Season Totals	12.16	8.61	4.05	7.40	4.76

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>4</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.55</u>	<u>3.39</u>	<u>1.16</u>	<u>2.92</u>	<u>1.63</u>
Season Totals	4.55	3.39	1.16	2.92	1.63
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.66	3.23	0.44	2.78	0.88
October	<u>3.19</u>	<u>1.35</u>	<u>2.34</u>	<u>1.16</u>	<u>2.03</u>
Season Totals	6.85	4.58	2.78	3.94	2.91
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.33	3.17	0.16	2.73	0.60
October	3.89	1.54	2.35	1.32	2.57
November	<u>1.24</u>	<u>1.08</u>	<u>0.66</u>	<u>0.93</u>	<u>0.31</u>
Season Totals	8.46	5.79	3.17	4.98	3.48
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 – Dec. 9 (100 days)			
September	3.17	3.14	0.03	2.70	0.47
October	3.81	1.53	2.28	1.32	2.49
November	2.48	1.11	1.37	0.95	1.53
December	<u>0.44</u>	<u>0.44</u>	<u>0.50</u>	<u>0.38</u>	<u>0.06</u>
Season Totals	9.90	6.22	4.18	5.35	4.55
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>3.87</u>	<u>2.31</u>	1.56	<u>1.99</u>	<u>1.88</u>
Season Totals	3.87	2.31	1.56	1.99	1.88
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	3.18	2.23	0.95	1.92	1.26
November	<u>2.34</u>	<u>1.09</u>	<u>1.76</u>	<u>0.94</u>	<u>1.40</u>
Season Totals	5.52	3.32	2.71	2.86	2.66

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	2.86	2.19	0.67	1.88	0.98
November	2.85	1.14	1.72	0.98	1.87
December	<u>1.00</u>	<u>1.00</u>	<u>0.50</u>	<u>0.86</u>	<u>0.14</u>
Season Totals	6.71	4.33	2.89	3.72	2.99
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.71	2.17	0.54	1.87	0.84
November	2.81	1.13	1.67	0.97	1.84
December	2.00	1.04	0.96	0.89	1.11
January	<u>0.36</u>	<u>0.36</u>	<u>0.50</u>	<u>0.31</u>	<u>0.05</u>
Season Totals	7.88	4.70	3.67	4.04	3.84
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>2.85</u>	<u>1.29</u>	<u>1.56</u>	<u>1.11</u>	<u>1.74</u>
Season Totals	2.85	1.29	1.56	1.11	1.74
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	2.29	1.25	1.04	1.08	1.22
December	<u>1.96</u>	<u>1.06</u>	<u>1.40</u>	<u>0.91</u>	<u>1.05</u>
Season Totals	4.25	2.31	2.44	1.99	2.26
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	2.08	1.23	0.85	1.06	1.02
December	2.33	1.06	1.27	0.91	1.42
January	<u>0.94</u>	<u>0.94</u>	<u>0.50</u>	<u>0.81</u>	<u>0.13</u>
Season Totals	5.35	3.23	2.62	2.78	2.57
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
November	1.98	1.23	0.75	1.06	0.92
December	2.29	1.06	1.24	0.91	1.38
January	1.91	1.08	0.83	0.93	0.98
February	<u>0.40</u>	<u>0.40</u>	<u>0.50</u>	<u>0.34</u>	<u>0.06</u>
Season Totals	6.58	3.77	3.32	3.24	3.34

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 4

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>2.34</u>	<u>1.08</u>	<u>1.25</u>	<u>0.93</u>	<u>1.41</u>
Season Totals	2.34	1.08	1.25	0.93	1.41
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	1.92	1.06	0.86	0.91	1.01
January	<u>1.84</u>	<u>1.22</u>	<u>1.11</u>	<u>1.05</u>	<u>0.79</u>
Season Totals	3.76	2.28	1.97	1.96	1.80
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	1.72	1.04	0.68	0.89	0.83
January	2.20	1.10	1.10	0.95	1.25
February	<u>0.97</u>	<u>0.97</u>	<u>0.50</u>	<u>0.83</u>	<u>0.14</u>
Season Totals	4.89	3.11	2.28	2.67	2.22
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - March 31 (100 days)			
December	1.58	1.04	0.54	0.89	0.69
January	2.07	1.09	0.98	0.94	1.13
February	2.17	1.42	0.76	1.22	0.95
March	<u>2.27</u>	<u>1.16</u>	<u>1.61</u>	<u>1.00</u>	<u>1.27</u>
Season Totals	8.09	4.71	3.89	4.05	4.04

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Avocados</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.54	0.48	1.06	0.41	1.13
February	1.62	1.01	0.61	0.87	0.75
March	2.59	1.32	1.27	1.14	1.45
April	3.44	0.91	2.53	0.78	2.66
May	4.61	2.37	2.24	2.04	2.57
June	5.03	4.13	0.91	3.55	1.48
July	4.98	3.51	1.47	3.02	1.96
August	4.35	3.57	0.78	3.07	1.28
September	3.49	3.20	0.30	2.75	0.74
October	2.65	1.63	1.02	1.40	1.25
November	1.92	0.94	0.99	0.81	1.11
December	<u>1.57</u>	<u>0.83</u>	<u>1.24</u>	<u>0.71</u>	<u>0.86</u>
Season Totals	37.79	23.90	14.42	20.55	17.24
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.96	0.49	1.47	0.42	1.54
February	1.97	1.03	0.94	0.89	1.08
March	2.75	1.34	1.41	1.15	1.60
April	3.27	0.90	2.36	0.77	2.50
May	4.20	2.32	1.88	2.00	2.20
June	4.65	4.04	0.61	3.47	1.18
July	4.88	3.49	1.39	3.00	1.88
August	4.66	3.63	1.03	3.12	1.54
September	4.10	3.31	0.80	2.85	1.25
October	3.41	1.70	1.71	1.46	1.95
November	2.50	0.97	1.54	0.83	1.67
December	<u>2.02</u>	<u>0.85</u>	<u>1.67</u>	<u>0.73</u>	<u>1.29</u>
Season Totals	40.37	24.07	16.81	20.70	19.67
Crop: <u>Corn, sweet</u>		Growing Season: Jan. 15 - April 15			
January	1.62	0.71	0.91	0.61	1.01
February	2.50	1.06	1.43	0.91	1.59
March	4.35	1.46	2.88	1.26	3.09
April	<u>2.36</u>	<u>1.30</u>	<u>1.57</u>	<u>1.12</u>	<u>1.24</u>
Season Totals	10.83	4.53	6.79	3.90	6.93

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Corn, sweet</u>		Growing Season: Jan. 15 - May 15			
January	1.59	0.71	0.88	0.61	0.98
February	2.07	1.04	1.03	0.89	1.18
March	4.26	1.45	2.81	1.25	3.01
April	4.94	0.99	3.95	0.85	4.09
May	<u>2.83</u>	<u>2.23</u>	<u>1.10</u>	<u>1.92</u>	<u>0.91</u>
Season Totals	15.69	6.42	9.77	5.52	10.17
Crop: <u>Corn, sweet</u>		Growing Season: Feb. 1 - April 30			
February	1.64	0.96	0.68	0.83	0.81
March	4.21	1.45	2.76	1.25	2.96
April	<u>4.98</u>	<u>1.74</u>	<u>3.74</u>	<u>1.50</u>	<u>3.48</u>
Season Totals	10.83	4.15	7.18	3.57	7.26
Crop: <u>Melons & cantaloupes</u>		Growing Season: Jan. 1 - March 31			
January	1.74	0.49	1.25	0.42	1.32
February	2.72	1.08	1.65	0.93	1.79
March	<u>3.32</u>	<u>1.15</u>	<u>2.67</u>	<u>0.99</u>	<u>2.33</u>
Season Totals	7.78	2.72	5.57	2.34	5.44
Crop: <u>Melons & cantaloupes</u>		Growing Season: Feb. 1 - April 30			
February	1.59	0.96	0.63	0.83	0.76
March	3.67	1.41	2.26	1.21	2.46
April	<u>3.82</u>	<u>1.63</u>	<u>2.69</u>	<u>1.40</u>	<u>2.42</u>
Season Totals	9.08	4.00	5.58	3.44	5.64

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Pasture grasses</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.63	0.48	1.15	0.41	1.22
February	1.91	1.03	0.88	0.89	1.02
March	3.24	1.37	1.86	1.18	2.06
April	4.07	0.94	3.13	0.81	3.26
May	5.34	2.47	2.87	2.12	3.22
June	5.95	4.34	1.60	3.73	2.22
July	6.21	3.76	2.46	3.23	2.98
August	5.85	3.88	1.97	3.34	2.51
September	4.95	3.47	1.48	2.98	1.97
October	3.72	1.73	1.99	1.49	2.23
November	2.36	0.96	1.40	0.83	1.53
December	<u>1.71</u>	<u>0.83</u>	<u>1.38</u>	<u>0.71</u>	<u>1.00</u>
Season Totals	46.94	25.26	22.17	21.72	25.22
Crop: <u>Rice</u>		Growing Season: March 1 - Nov. 31			
March	2.01	1.16	0.85	1.00	1.01
April	3.92	0.94	2.98	0.81	3.11
May	6.19	2.59	3.60	2.23	3.96
June	7.14	4.64	2.50	3.99	3.15
July	7.62	4.06	3.56	3.49	4.13
August	7.23	4.19	3.04	3.60	3.63
September	6.28	3.73	2.55	3.21	3.07
October	5.04	1.86	3.17	1.60	3.44
November	<u>3.43</u>	<u>0.91</u>	<u>3.02</u>	<u>0.78</u>	<u>2.65</u>
Season Totals	48.86	24.08	25.27	20.71	28.15

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>5</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Sugarcane</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.80	0.49	1.31	0.42	1.38
February	2.29	1.05	1.24	0.90	1.39
March	3.76	1.41	2.35	1.21	2.55
April	4.76	0.98	3.78	0.84	3.92
May	6.22	2.59	3.63	2.23	3.99
June	7.02	4.61	2.41	3.96	3.06
July	7.49	4.03	3.45	3.47	4.02
August	7.18	4.18	3.00	3.59	3.59
September	6.18	3.71	2.47	3.19	2.99
October	4.82	1.84	2.98	1.58	3.24
November	3.00	0.99	2.00	0.85	2.15
December	<u>1.97</u>	<u>0.85</u>	<u>1.63</u>	<u>0.73</u>	<u>1.24</u>
Season Totals	56.49	26.73	30.25	22.99	33.50
Crop: <u>Tomatoes</u>		Growing Season: Jan. 1 - Apr. 30			
January	1.79	0.49	1.31	0.42	1.37
February	2.98	1.09	1.89	0.94	2.04
March	4.30	1.46	2.84	1.26	3.04
April	<u>3.94</u>	<u>1.64</u>	<u>2.30</u>	<u>1.41</u>	<u>2.53</u>
Season Totals	13.01	4.68	8.34	4.02	8.99
Crop: <u>Tomatoes</u>		Growing Season: Feb. 1 - May 31			
February	1.61	0.96	0.65	0.83	0.78
March	3.98	1.43	2.55	1.23	2.75
April	4.98	0.99	3.99	0.85	4.13
May	<u>4.98</u>	<u>3.29</u>	<u>1.69</u>	<u>2.83</u>	<u>2.15</u>
Season Totals	15.55	6.67	8.88	5.74	9.81
Crop: <u>Tomatoes</u>		Growing Season: March 1 - May 24			
March	2.60	1.20	1.40	1.03	1.57
April	5.04	1.00	4.05	0.86	4.18
May	<u>3.86</u>	<u>2.78</u>	<u>1.59</u>	<u>2.39</u>	<u>1.47</u>
Season Totals	11.50	4.98	7.04	4.28	7.22

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Tomatoes</u>		Growing Season: March 1 - June 24			
March	2.29	1.18	1.11	1.01	1.28
April	4.82	0.98	3.84	0.84	3.98
May	6.11	2.58	3.53	2.22	3.89
June	<u>4.08</u>	<u>3.53</u>	<u>1.05</u>	<u>3.04</u>	<u>1.04</u>
Season Totals	17.30	8.27	9.53	7.11	10.19
Crop: <u>Tomatoes</u>		Growing Season: Aug. 1 - Oct. 24			
August	4.35	3.48	0.87	2.99	1.36
September	6.32	3.74	2.58	3.22	3.10
October	<u>3.18</u>	<u>1.61</u>	<u>2.07</u>	<u>1.38</u>	<u>1.80</u>
Season Totals	13.85	8.83	5.52	7.59	6.26
Crop: <u>Tomatoes</u>		Growing Season: Aug. 1 - Nov. 24			
August	3.83	3.38	0.45	2.91	0.92
September	6.04	3.69	2.36	3.17	2.87
October	5.22	1.88	3.34	1.62	3.60
November	<u>2.34</u>	<u>0.96</u>	<u>1.88</u>	<u>0.83</u>	<u>1.51</u>
Season Totals	17.43	9.91	8.03	8.52	8.91
Crop: <u>Tomatoes</u>		Growing Season: Aug. 1 - Dec. 15			
August	1.80	1.80	0.00	1.55	0.25
September	4.86	3.45	1.41	2.97	1.89
October	5.40	1.90	3.50	1.63	3.77
November	3.67	1.03	2.64	0.89	2.78
December	<u>1.12</u>	<u>0.81</u>	<u>0.31</u>	<u>0.70</u>	<u>0.42</u>
Season Totals	16.85	8.99	7.86	7.73	9.12
Crop: <u>Tomatoes</u>		Growing Season: Sept. 1 - Dec. 31			
September	3.29	3.24	0.05	2.79	0.50
October	4.99	1.86	3.13	1.60	3.39
November	4.03	1.05	2.98	0.90	3.13
December	<u>2.59</u>	<u>0.88</u>	<u>2.21</u>	<u>0.76</u>	<u>1.83</u>
Season Totals	14.90	7.03	8.37	6.05	8.85

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>2.46</u>	<u>0.51</u>	<u>1.96</u>	<u>0.44</u>	<u>2.02</u>
Season Totals	2.46	0.51	1.96	0.44	2.02
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 – March 1 (60 days)			
January	2.02	0.49	1.53	0.42	1.60
February	2.15	1.04	1.11	0.89	1.26
March	<u>0.06</u>	<u>0.06</u>	<u>0.50</u>	<u>0.05</u>	<u>0.01</u>
Season Totals	4.23	1.59	3.14	1.37	2.86
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	1.82	0.49	1.33	0.42	1.40
February	2.44	1.06	1.38	0.91	1.53
March	<u>1.62</u>	<u>1.07</u>	<u>1.04</u>	<u>0.92</u>	<u>0.70</u>
Season Totals	5.88	2.62	3.75	2.25	3.63
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - April 10 (100 days)			
January	1.73	0.48	1.24	0.41	1.32
February	2.39	1.06	1.33	0.91	1.48
March	2.96	1.35	1.61	1.16	1.80
April	<u>0.80</u>	<u>0.80</u>	<u>0.50</u>	<u>0.69</u>	<u>0.11</u>
Season Totals	7.88	3.69	4.68	3.17	4.71
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 – March 2 (30 days)			
February	2.29	1.00	1.29	0.86	1.43
March	<u>0.13</u>	<u>0.13</u>	<u>0.50</u>	<u>0.11</u>	<u>0.02</u>
Season Totals	2.42	1.13	1.79	0.97	1.45
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	1.80	0.97	0.83	0.83	0.97
March	3.07	1.36	1.71	1.17	1.90
April	<u>0.08</u>	<u>0.08</u>	<u>0.50</u>	<u>0.07</u>	<u>0.01</u>
Season Totals	4.95	2.41	3.04	2.07	2.88

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 – April 21 (80 days)			
February	1.65	0.96	0.69	0.83	0.82
March	3.32	1.38	1.94	1.19	2.13
April	<u>1.95</u>	<u>1.35</u>	<u>1.10</u>	<u>1.16</u>	<u>0.79</u>
Season Totals	6.92	3.69	3.73	3.17	3.75
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - May 11 (100 days)			
February	1.58	0.96	0.62	0.83	0.75
March	3.22	1.37	1.85	1.18	2.04
April	3.43	0.91	2.52	0.78	2.65
May	<u>1.07</u>	<u>1.07</u>	<u>0.50</u>	<u>0.92</u>	<u>0.15</u>
Season Totals	9.30	4.31	5.49	3.71	5.59
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – March 30 (30 days)			
March	<u>3.10</u>	<u>1.23</u>	<u>1.87</u>	<u>1.06</u>	<u>2.04</u>
Season Totals	3.10	1.23	1.87	1.06	2.04
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - April 29 (60 days)			
March	2.55	1.19	1.36	1.02	1.53
April	<u>3.37</u>	<u>1.57</u>	<u>2.30</u>	<u>1.35</u>	<u>2.02</u>
Season Totals	5.92	2.76	3.66	2.37	3.55
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	2.29	1.18	1.11	1.01	1.28
April	3.84	0.93	2.91	0.80	3.04
May	<u>2.05</u>	<u>2.05</u>	<u>0.50</u>	<u>1.76</u>	<u>0.29</u>
Season Totals	8.18	4.16	4.52	3.58	4.60
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	2.17	1.17	1.01	1.01	1.16
April	3.78	0.93	2.85	0.80	2.98
May	4.13	2.31	1.82	1.99	2.14
June	<u>0.87</u>	<u>0.87</u>	<u>0.50</u>	<u>0.75</u>	<u>0.12</u>
Season Totals	10.95	5.28	6.18	4.54	6.41

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - April 30 (30 days)			
April	<u>3.58</u>	<u>1.18</u>	<u>2.41</u>	<u>1.01</u>	<u>2.57</u>
Season Totals	3.58	1.18	2.41	1.01	2.57
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	2.88	1.13	1.75	0.97	1.91
May	<u>4.20</u>	<u>3.10</u>	<u>1.60</u>	<u>2.67</u>	<u>1.53</u>
Season Totals	7.08	4.23	3.35	3.64	3.44
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.62	1.12	1.50	0.96	1.66
May	4.82	2.40	2.42	2.06	2.76
June	<u>2.32</u>	<u>2.32</u>	<u>0.50</u>	<u>2.00</u>	<u>0.32</u>
Season Totals	9.76	5.84	4.42	5.02	4.74
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.18</u>	<u>3.64</u>	<u>1.54</u>	<u>3.13</u>	<u>2.05</u>
Season Totals	5.18	3.64	1.54	3.13	2.05
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.26	3.46	0.80	2.98	1.28
September	<u>4.00</u>	<u>2.58</u>	<u>1.92</u>	<u>2.22</u>	<u>1.78</u>
Season Totals	8.26	6.04	2.72	5.19	3.07
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.83	3.38	0.45	2.91	0.92
September	4.81	3.44	1.37	2.96	1.85
October	<u>1.72</u>	<u>1.65</u>	<u>0.57</u>	<u>1.42</u>	<u>0.30</u>
Season Totals	10.36	8.47	2.39	7.28	3.08

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.63	3.34	0.29	2.87	0.76
September	4.73	3.43	1.31	2.95	1.78
October	3.57	1.72	1.85	1.48	2.09
November	<u>0.53</u>	<u>0.53</u>	<u>0.50</u>	<u>0.46</u>	<u>0.07</u>
Season Totals	12.46	9.02	3.95	7.76	4.70
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.62</u>	<u>3.49</u>	<u>1.13</u>	<u>3.00</u>	<u>1.62</u>
Season Totals	4.62	3.49	1.13	3.00	1.62
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.71	3.31	0.40	2.85	0.86
October	<u>3.38</u>	<u>1.40</u>	<u>2.48</u>	<u>1.20</u>	<u>2.18</u>
Season Totals	7.09	4.71	2.88	4.05	3.04
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.38	3.25	0.12	2.80	0.59
October	4.10	1.77	2.34	1.52	2.58
November	<u>1.36</u>	<u>0.98</u>	<u>0.88</u>	<u>0.84</u>	<u>0.52</u>
Season Totals	8.84	6.00	3.34	5.16	3.68
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 9 (100 days)			
September	3.15	3.15	0.00	2.71	0.44
October	3.96	1.75	2.20	1.51	2.46
November	2.95	0.99	1.96	0.85	2.10
December	<u>1.04</u>	<u>0.81</u>	<u>0.73</u>	<u>0.70</u>	<u>0.34</u>
Season Totals	11.10	6.70	4.89	5.76	5.34
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>4.06</u>	<u>2.52</u>	<u>1.54</u>	<u>2.17</u>	<u>1.89</u>
Season Totals	4.06	2.52	1.54	2.17	1.89

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>5</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	3.33	2.42	0.91	2.08	1.25
November	<u>2.57</u>	<u>0.90</u>	<u>2.17</u>	<u>0.77</u>	<u>1.80</u>
Season Totals	5.90	3.32	3.08	2.86	3.04
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	2.99	2.38	0.62	2.05	0.94
November	3.12	1.00	2.12	0.86	2.26
December	<u>1.11</u>	<u>0.81</u>	<u>0.80</u>	<u>0.70</u>	<u>0.41</u>
Season Totals	7.22	4.19	3.54	3.60	3.62
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.84	2.36	0.49	0.16	2.68
November	3.07	1.00	2.07	2.17	0.90
December	2.24	0.79	1.45	1.48	0.76
January	<u>0.40</u>	<u>0.40</u>	<u>0.50</u>	<u>0.50</u>	<u>-0.10</u>
Season Totals	8.55	4.55	4.51	4.31	4.24
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>3.10</u>	<u>1.33</u>	<u>1.76</u>	<u>1.14</u>	<u>1.96</u>
Season Totals	3.10	1.33	1.76	1.14	1.96
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	2.49	1.29	1.20	1.11	1.38
December	<u>2.20</u>	<u>0.86</u>	<u>1.85</u>	<u>0.74</u>	<u>1.46</u>
Season Totals	4.69	2.15	3.05	1.85	2.84
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	2.26	1.27	0.99	1.09	1.17
December	2.61	0.80	1.81	0.69	1.92
January	<u>1.06</u>	<u>0.88</u>	<u>0.68</u>	<u>0.76</u>	<u>0.30</u>
Season Totals	5.93	2.95	3.48	2.54	3.39

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 5

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
November	2.15	1.26	0.89	1.08	1.07
December	2.57	0.80	1.77	0.69	1.88
January	2.15	0.93	1.23	0.80	1.35
February	<u>0.44</u>	<u>0.44</u>	<u>0.50</u>	<u>0.38</u>	<u>0.06</u>
Season Totals	7.31	3.43	4.39	2.95	4.36
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>2.61</u>	<u>0.89</u>	<u>1.72</u>	<u>0.77</u>	<u>1.84</u>
Season Totals	2.61	0.89	1.72	0.77	1.84
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	2.14	0.86	1.28	0.74	1.40
January	<u>2.06</u>	<u>0.97</u>	<u>1.59</u>	<u>0.83</u>	<u>1.23</u>
Season Totals	4.20	1.83	2.87	1.57	2.63
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	1.92	0.85	1.07	0.73	1.19
January	2.48	0.94	1.53	0.81	1.67
February	<u>1.07</u>	<u>1.04</u>	<u>0.53</u>	<u>0.89</u>	<u>0.18</u>
Season Totals	5.47	2.83	3.13	2.43	3.04
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 – March 31 (100 days)			
December	1.76	0.85	0.91	0.73	1.03
January	2.33	0.94	1.40	0.81	1.52
February	2.40	1.06	1.34	0.91	1.49
March	<u>2.39</u>	<u>1.09</u>	<u>1.80</u>	<u>0.94</u>	<u>1.45</u>
Season Totals	8.88	3.94	5.45	3.39	5.49

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>6</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Avocados</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.68	0.58	1.10	0.50	1.18
February	1.75	1.15	0.60	0.99	0.76
March	2.75	1.31	1.44	1.13	1.62
April	3.60	1.43	2.17	1.23	2.37
May	4.70	3.12	1.58	2.68	2.02
June	5.05	4.24	0.81	3.65	1.40
July	5.02	3.12	1.90	2.68	2.34
August	4.38	3.30	1.08	2.84	1.54
September	3.51	3.51	0.00	3.02	0.49
October	2.73	2.70	0.03	2.32	0.41
November	2.03	1.51	0.53	1.30	0.73
December	<u>1.71</u>	<u>1.02</u>	<u>1.19</u>	<u>0.88</u>	<u>0.83</u>
Season Totals	38.91	26.99	12.43	23.21	15.70
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	2.15	0.60	1.55	0.52	1.63
February	2.14	1.18	0.96	1.01	1.13
March	2.92	1.33	1.60	1.14	1.78
April	3.42	1.41	2.00	1.21	2.21
May	4.27	3.05	1.22	2.62	1.65
June	4.67	4.15	0.52	3.57	1.10
July	4.92	3.11	1.81	2.67	2.25
August	4.69	3.36	1.33	2.89	1.80
September	4.13	3.67	0.46	3.16	0.97
October	3.52	2.82	0.70	2.43	1.09
November	2.64	1.56	1.09	1.34	1.30
December	<u>2.20</u>	<u>1.05</u>	<u>1.66</u>	<u>0.90</u>	<u>1.30</u>
Season Totals	41.67	27.29	14.90	23.47	18.20
Crop: <u>Corn, sweet</u>		Growing Season: Jan. 15 – April 15			
January	1.77	0.84	0.93	0.72	1.05
February	2.70	1.22	1.48	1.05	1.65
March	4.62	1.46	3.16	1.26	3.36
April	<u>2.47</u>	<u>1.71</u>	<u>1.26</u>	<u>1.47</u>	<u>1.00</u>
Season Totals	11.56	5.23	6.83	4.50	7.06

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 6

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Melons & cantaloupes</u>		Growing Season: Jan. 1 - March 31			
January	1.90	0.59	1.31	0.51	1.39
February	2.95	1.23	1.71	1.06	1.89
March	<u>3.51</u>	<u>1.40</u>	<u>2.62</u>	<u>1.20</u>	<u>2.31</u>
Season Totals	8.36	3.22	5.64	2.77	5.59
Crop: <u>Pasture grasses</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.79	0.59	1.20	0.51	1.28
February	2.06	1.17	0.89	1.01	1.05
March	3.44	1.37	2.07	1.18	2.26
April	4.26	1.48	2.77	1.27	2.99
May	5.43	3.26	2.18	2.80	2.63
June	5.97	4.46	1.50	3.84	2.13
July	6.27	3.35	2.92	2.88	3.39
August	5.88	3.59	2.29	3.09	2.79
September	4.98	3.85	1.13	3.31	1.67
October	3.83	2.87	0.97	2.47	1.36
November	2.49	1.54	0.95	1.32	1.17
December	<u>1.87</u>	<u>1.03</u>	<u>1.34</u>	<u>0.89</u>	<u>0.98</u>
Season Totals	48.27	28.56	20.21	24.56	23.71
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>2.70</u>	<u>0.62</u>	<u>2.08</u>	<u>0.53</u>	<u>2.17</u>
Season Totals	2.70	0.62	2.08	0.53	2.17
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 – March 1 (60 days)			
January	2.22	0.60	1.61	0.52	1.70
February	2.33	1.19	1.14	1.02	1.31
March	<u>0.07</u>	<u>0.07</u>	<u>0.50</u>	<u>0.06</u>	<u>0.01</u>
Season Totals	4.62	1.86	3.25	1.60	3.02

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 6

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	1.99	0.59	1.40	0.51	1.48
February	2.64	1.21	1.42	1.04	1.60
March	<u>1.71</u>	<u>1.24</u>	<u>0.97</u>	<u>1.07</u>	<u>0.64</u>
Season Totals	6.34	3.04	3.79	2.61	3.73
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - April 10 (100 days)			
January	1.89	0.59	1.30	0.51	1.38
February	2.58	1.21	1.38	1.04	1.54
March	3.15	1.34	1.80	1.15	2.00
April	<u>0.84</u>	<u>0.84</u>	<u>0.50</u>	<u>0.72</u>	<u>0.12</u>
Season Totals	8.46	3.98	4.98	3.42	5.04
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - March 2 (30 days)			
February	2.48	1.17	1.32	1.01	1.47
March	<u>0.14</u>	<u>0.14</u>	<u>0.50</u>	<u>0.12</u>	<u>0.02</u>
Season Totals	2.62	1.31	1.82	1.13	1.49
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	1.95	1.13	0.82	0.97	0.98
March	3.26	1.35	1.91	1.16	2.10
April	<u>0.08</u>	<u>0.08</u>	<u>0.50</u>	<u>0.07</u>	<u>0.01</u>
Season Totals	5.29	2.56	3.23	2.20	3.09
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 21 (80 days)			
February	1.80	1.12	0.67	0.96	0.84
March	3.52	1.37	2.15	1.18	2.34
April	<u>2.03</u>	<u>1.81</u>	<u>0.72</u>	<u>1.56</u>	<u>0.47</u>
Season Totals	7.35	4.30	3.54	3.70	3.65

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 6

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - May 11 (100 days)			
February	1.71	1.12	0.60	0.96	0.75
March	3.43	1.36	2.06	1.17	2.26
April	3.59	1.43	2.16	1.23	2.36
May	<u>1.09</u>	<u>1.09</u>	<u>0.50</u>	<u>0.94</u>	<u>0.15</u>
Season Totals	9.82	5.00	5.32	4.30	5.52
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - March 30 (30 days)			
March	<u>3.31</u>	<u>1.31</u>	<u>2.00</u>	<u>1.13</u>	<u>2.18</u>
Season Totals	3.31	1.31	2.00	1.13	2.18
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - April 29 (60 days)			
March	2.72	1.27	1.45	1.09	1.63
April	<u>3.51</u>	<u>2.17</u>	<u>1.84</u>	<u>1.87</u>	<u>1.64</u>
Season Totals	6.23	3.44	3.29	2.96	3.27
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	2.44	1.25	1.19	1.08	1.37
April	4.02	1.46	2.56	1.26	2.76
May	<u>2.09</u>	<u>2.09</u>	<u>0.50</u>	<u>1.80</u>	<u>0.29</u>
Season Totals	8.55	4.80	4.25	4.13	4.42
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	2.32	1.24	1.08	1.07	1.25
April	3.95	1.46	2.49	1.26	2.69
May	4.20	3.04	1.16	2.61	1.59
June	<u>0.88</u>	<u>0.88</u>	<u>0.50</u>	<u>0.76</u>	<u>0.12</u>
Season Totals	11.35	6.62	5.23	5.69	5.66
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - April 30 (30 days)			
April	<u>3.76</u>	<u>1.44</u>	<u>2.32</u>	<u>1.24</u>	<u>2.52</u>
Season Totals	3.76	1.44	2.32	1.24	2.52

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>6</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	3.02	1.39	1.64	1.20	1.82
May	<u>4.27</u>	<u>3.52</u>	<u>1.25</u>	<u>3.03</u>	<u>1.24</u>
Season Totals	7.29	4.91	2.89	4.22	3.07
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	2.75	1.37	1.38	1.18	1.57
May	4.91	3.16	1.75	2.72	2.19
June	<u>2.33</u>	<u>2.33</u>	<u>0.50</u>	<u>2.00</u>	<u>0.33</u>
Season Totals	9.99	6.86	3.63	5.90	4.09
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.22</u>	<u>3.32</u>	<u>1.90</u>	<u>2.86</u>	<u>2.36</u>
Season Totals	5.22	3.32	1.90	2.86	2.36
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.29	3.15	1.13	2.71	1.58
September	<u>4.04</u>	<u>3.29</u>	<u>1.26</u>	<u>2.83</u>	<u>1.21</u>
Season Totals	8.33	6.44	2.39	5.54	2.79
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	3.85	3.08	0.78	2.65	1.20
September	4.84	3.82	1.02	3.29	1.55
October	<u>1.77</u>	<u>1.77</u>	<u>0.50</u>	<u>1.52</u>	<u>0.25</u>
Season Totals	10.46	8.67	2.30	7.46	3.00
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.66	3.04	0.61	2.61	1.05
September	4.76	3.80	0.96	3.27	1.49
October	3.67	2.84	0.83	2.44	1.23
November	<u>0.56</u>	<u>0.56</u>	<u>0.50</u>	<u>0.48</u>	<u>0.08</u>
Season Totals	12.65	10.24	2.90	8.81	3.84

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 6

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.65</u>	<u>3.56</u>	<u>1.09</u>	<u>3.06</u>	<u>1.59</u>
Season Totals	4.65	3.56	1.09	3.06	1.59
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.73	3.38	0.35	2.91	0.82
October	<u>3.50</u>	<u>2.27</u>	<u>1.73</u>	<u>1.95</u>	<u>1.55</u>
Season Totals	7.23	5.65	2.08	4.86	2.37
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.39	3.32	0.08	2.86	0.53
October	4.23	2.93	1.30	2.52	1.71
November	<u>1.44</u>	<u>1.44</u>	<u>0.50</u>	<u>1.24</u>	<u>0.20</u>
Season Totals	9.06	7.69	1.88	6.61	2.45
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 9 (100 days)			
September	3.23	3.23	0.00	2.78	0.45
October	4.14	2.92	1.22	2.51	1.63
November	2.86	1.58	1.29	1.36	1.50
December	<u>0.53</u>	<u>0.53</u>	<u>0.50</u>	<u>0.46</u>	<u>0.07</u>
Season Totals	10.76	8.26	3.01	7.10	3.66
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>4.16</u>	<u>3.27</u>	<u>0.89</u>	<u>2.81</u>	<u>1.35</u>
Season Totals	4.16	3.27	0.89	2.81	1.35
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	3.41	3.14	0.28	2.70	0.71
November	<u>2.73</u>	<u>1.33</u>	<u>1.91</u>	<u>1.14</u>	<u>1.59</u>
Season Totals	6.14	4.47	2.19	3.84	2.30

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone: <u>6</u>		Normal Year		Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	3.07	3.07	0.00	2.64	0.43
November	3.30	1.62	1.68	1.39	1.91
December	<u>1.21</u>	<u>1.07</u>	<u>0.64</u>	<u>0.92</u>	<u>0.29</u>
Season Totals	7.58	5.76	2.32	4.95	2.63
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	2.91	2.91	0.00	0.16	2.75
November	3.24	1.61	1.63	2.17	1.07
December	2.43	1.00	1.43	1.48	0.95
January	<u>0.44</u>	<u>0.44</u>	<u>0.50</u>	<u>0.50</u>	<u>-0.06</u>
Season Totals	9.02	5.96	3.56	4.31	4.71
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>3.25</u>	<u>2.18</u>	<u>1.07</u>	<u>1.87</u>	<u>1.38</u>
Season Totals	3.25	2.18	1.07	1.87	1.38
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	2.61	2.11	0.51	1.81	0.80
December	<u>2.40</u>	<u>1.07</u>	<u>1.83</u>	<u>0.92</u>	<u>1.48</u>
Season Totals	5.01	3.18	2.34	2.73	2.28
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Jan. 19 (80 days)			
November	2.38	2.08	0.30	1.79	0.59
December	2.84	1.02	1.82	0.88	1.96
January	<u>1.16</u>	<u>1.05</u>	<u>0.61</u>	<u>0.90</u>	<u>0.26</u>
Season Totals	6.38	4.15	2.73	3.57	2.81
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)			
November	2.26	2.06	0.20	1.77	0.49
December	2.79	1.02	1.77	0.88	1.91
January	2.36	1.12	1.24	0.96	1.40
February	<u>0.47</u>	<u>0.47</u>	<u>0.50</u>	<u>0.40</u>	<u>0.07</u>
Season Totals	7.88	4.67	3.71	4.02	3.86

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 6

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)			
December	<u>2.82</u>	<u>1.30</u>	<u>1.52</u>	<u>1.12</u>	<u>1.70</u>
Season Totals	2.82	1.30	1.52	1.12	1.70
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)			
December	2.32	1.26	1.05	1.08	1.24
January	<u>2.26</u>	<u>1.14</u>	<u>1.61</u>	<u>0.98</u>	<u>1.28</u>
Season Totals	4.58	2.40	2.66	2.06	2.52
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)			
December	2.08	1.24	0.84	1.07	1.01
January	2.71	1.14	1.57	0.98	1.73
February	<u>1.15</u>	<u>1.13</u>	<u>0.52</u>	<u>0.97</u>	<u>0.18</u>
Season Totals	5.94	3.51	2.93	3.02	2.92
Crop: <u>Vegetables, small</u>		Growing Season: Dec. 1 - March 31 (100 days)			
December	1.90	1.23	0.67	1.06	0.84
January	2.56	1.13	1.43	0.97	1.59
February	2.60	1.21	1.39	1.04	1.56
March	<u>2.53</u>	<u>1.32</u>	<u>1.71</u>	<u>1.14</u>	<u>1.39</u>
Season Totals	9.59	4.89	5.20	4.21	5.38

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Avocados</u>		Growing Season: Jan. 1 - Dec. 31			
January	1.91	0.56	1.35	0.48	1.43
February	1.97	0.91	1.06	0.78	1.19
March	3.03	1.01	2.02	0.87	2.16
April	3.94	1.01	2.93	0.87	3.07
May	5.06	2.02	3.04	1.74	3.32
June	5.35	3.19	2.16	2.74	2.61
July	5.29	1.92	3.37	1.65	3.64
August	4.61	2.50	2.12	2.15	2.46
September	3.69	2.80	0.90	2.41	1.28
October	2.92	2.32	0.60	2.00	0.92
November	2.26	1.23	1.03	1.06	1.20
December	<u>1.94</u>	<u>0.98</u>	<u>1.46</u>	<u>0.84</u>	<u>1.10</u>
Season Totals	41.97	20.45	22.04	17.59	24.38
Crop: <u>Citrus</u>		Growing Season: Jan. 1 - Dec. 31			
January	2.44	0.58	1.86	0.50	1.94
February	2.40	0.93	1.47	0.80	1.60
March	3.22	1.02	2.20	0.88	2.34
April	3.74	1.00	2.74	0.86	2.88
May	4.60	1.97	2.63	1.69	2.91
June	4.94	3.12	1.83	2.68	2.26
July	5.19	1.91	3.27	1.64	3.55
August	4.94	2.54	2.40	2.18	2.76
September	4.33	2.90	1.44	2.49	1.84
October	3.76	2.43	1.33	2.09	1.67
November	2.94	1.27	1.67	1.09	1.85
December	<u>2.50</u>	<u>1.01</u>	<u>1.98</u>	<u>0.87</u>	<u>1.63</u>
Season Totals	45.00	20.68	24.82	17.78	27.22
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - Jan. 30 (30 days)			
January	<u>3.06</u>	<u>0.60</u>	<u>2.47</u>	<u>0.52</u>	<u>2.54</u>
Season Totals	3.06	0.60	2.47	0.52	2.54

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 1 (60 days)			
January	2.52	0.58	1.94	0.50	2.02
February	2.62	0.94	1.68	0.81	1.81
March	<u>0.08</u>	<u>0.08</u>	<u>0.50</u>	<u>0.07</u>	<u>0.01</u>
Season Totals	5.22	1.60	4.12	1.38	3.84
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - March 21 (80 days)			
January	2.26	0.57	1.69	0.49	1.77
February	2.96	0.96	2.00	0.83	2.13
March	<u>1.89</u>	<u>0.92</u>	<u>1.47</u>	<u>0.79</u>	<u>1.10</u>
Season Totals	7.11	2.45	5.16	2.11	5.00
Crop: <u>Vegetables, small</u>		Growing Season: Jan. 1 - April 10 (100 days)			
January	2.15	0.57	1.58	0.49	1.66
February	2.90	0.96	1.95	0.83	2.07
March	3.47	1.03	2.44	0.89	2.58
April	<u>0.91</u>	<u>0.91</u>	<u>0.50</u>	<u>0.78</u>	<u>0.13</u>
Season Totals	9.43	3.47	6.47	2.98	6.45
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - March 2 (30 days)			
February	2.79	1.02	1.77	0.88	1.91
March	<u>0.15</u>	<u>0.15</u>	<u>0.50</u>	<u>0.13</u>	<u>0.02</u>
Season Totals	2.94	1.17	2.27	1.01	1.93
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 1 (60 days)			
February	2.19	0.99	1.21	0.85	1.34
March	3.59	1.04	2.55	0.89	2.70
April	<u>0.09</u>	<u>0.09</u>	<u>0.50</u>	<u>0.08</u>	<u>0.01</u>
Season Totals	5.87	2.12	4.26	1.82	4.05

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - April 21 (80 days)			
February	2.02	0.98	1.04	0.84	1.18
March	3.88	1.05	2.82	0.90	2.98
April	<u>2.21</u>	<u>1.22</u>	<u>1.50</u>	<u>1.05</u>	<u>1.16</u>
Season Totals	8.11	3.25	5.36	2.80	5.32
Crop: <u>Vegetables, small</u>		Growing Season: Feb. 1 - May 11 (100 days)			
February	1.93	0.97	0.95	0.83	1.10
March	3.77	1.05	2.72	0.90	2.87
April	3.93	1.01	2.92	0.87	3.06
May	<u>1.18</u>	<u>1.18</u>	<u>0.50</u>	<u>1.01</u>	<u>0.17</u>
Season Totals	10.81	4.21	7.09	3.62	7.19
Crop: <u>Vegetables, small</u>		Growing Season: March 1 – March 30 (30 days)			
March	<u>3.65</u>	<u>1.02</u>	<u>2.63</u>	<u>0.88</u>	<u>2.77</u>
Season Totals	3.65	1.02	2.63	0.88	2.77
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - April 29 (60 days)			
March	3.00	0.98	2.02	0.84	2.16
April	<u>3.83</u>	<u>1.44</u>	<u>2.89</u>	<u>1.24</u>	<u>2.59</u>
Season Totals	6.83	2.42	4.91	2.08	4.75
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - May 19 (80 days)			
March	2.70	0.97	1.73	0.83	1.87
April	4.40	1.03	3.37	0.89	3.51
May	<u>2.24</u>	<u>1.88</u>	<u>0.86</u>	<u>1.62</u>	<u>0.62</u>
Season Totals	9.34	3.88	5.96	3.34	6.00
Crop: <u>Vegetables, small</u>		Growing Season: March 1 - June 8 (100 days)			
March	2.56	0.96	1.60	0.83	1.73
April	4.33	1.03	3.30	0.89	3.44
May	4.53	1.96	2.57	1.69	2.84
June	<u>0.93</u>	<u>0.93</u>	<u>0.50</u>	<u>0.80</u>	<u>0.13</u>
Season Totals	12.35	4.88	7.97	4.20	8.15

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - April 30 (30 days)			
April	<u>4.12</u>	<u>1.06</u>	<u>3.06</u>	<u>0.91</u>	<u>3.21</u>
Season Totals	4.12	1.06	3.06	0.91	3.21
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - May 30 (60 days)			
April	3.31	1.01	2.30	0.87	2.44
May	<u>4.58</u>	<u>2.49</u>	<u>2.59</u>	<u>2.14</u>	<u>2.44</u>
Season Totals	7.89	3.50	4.89	3.01	4.88
Crop: <u>Vegetables, small</u>		Growing Season: April 1 - June 19 (80 days)			
April	3.01	0.99	2.01	0.85	2.16
May	5.28	2.04	3.24	1.75	3.53
June	<u>2.47</u>	<u>2.21</u>	<u>0.76</u>	<u>1.90</u>	<u>0.57</u>
Season Totals	10.76	5.24	6.01	4.51	6.25
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Aug. 30 (30 days)			
August	<u>5.50</u>	<u>2.31</u>	<u>3.19</u>	<u>1.99</u>	<u>3.51</u>
Season Totals	5.50	2.31	3.19	1.99	3.51
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Sept. 29 (60 days)			
August	4.52	2.19	2.33	1.88	2.64
September	<u>4.26</u>	<u>2.69</u>	<u>2.07</u>	<u>2.31</u>	<u>1.95</u>
Season Totals	8.78	4.88	4.40	4.20	4.58
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Oct. 19 (80 days)			
August	4.06	2.13	1.93	1.83	2.23
September	5.08	3.02	2.06	2.60	2.48
October	<u>1.90</u>	<u>1.90</u>	<u>0.50</u>	<u>1.63</u>	<u>0.27</u>
Season Totals	11.04	7.05	4.49	6.06	4.98

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Aug. 1 - Nov. 8 (100 days)			
August	3.86	2.11	1.75	1.81	2.05
September	5.00	3.01	1.99	2.59	2.41
October	3.93	2.45	1.48	2.11	1.82
November	<u>0.62</u>	<u>0.62</u>	<u>0.50</u>	<u>0.53</u>	<u>0.09</u>
Season Totals	13.41	8.19	5.72	7.04	6.37
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Sept. 30 (30 days)			
September	<u>4.89</u>	<u>2.76</u>	<u>2.12</u>	<u>2.37</u>	<u>2.52</u>
Season Totals	4.89	2.76	2.12	2.37	2.52
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Oct. 30 (60 days)			
September	3.93	2.62	1.31	2.25	1.68
October	<u>3.77</u>	<u>1.92</u>	<u>2.34</u>	<u>1.65</u>	<u>2.12</u>
Season Totals	7.70	4.54	3.65	3.90	3.80
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Nov. 19 (80 days)			
September	3.57	2.57	1.00	2.21	1.36
October	4.52	2.54	1.99	2.18	2.34
November	<u>1.60</u>	<u>1.28</u>	<u>0.81</u>	<u>1.10</u>	<u>0.50</u>
Season Totals	9.69	6.39	3.80	5.50	4.19
Crop: <u>Vegetables, small</u>		Growing Season: Sept. 1 - Dec. 9 (100 days)			
September	3.40	2.54	0.86	2.18	1.22
October	4.43	2.52	1.91	2.17	2.26
November	3.19	1.29	1.89	1.11	2.08
December	<u>0.60</u>	<u>0.60</u>	<u>0.50</u>	<u>0.52</u>	<u>0.08</u>
Season Totals	11.62	6.95	5.16	5.98	5.64
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Oct. 30 (30 days)			
October	<u>4.43</u>	<u>2.70</u>	<u>1.74</u>	<u>2.32</u>	<u>2.11</u>
Season Totals	4.43	2.70	1.74	2.32	2.11

Table FL4-6 Irrigation Water Requirements – Inches (cont.)Climatic Zone: 7

Month	Monthly Consumptive Use	Normal Year		Dry Year	
		Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Nov. 29 (60 days)			
October	3.64	2.58	1.06	2.22	1.42
November	<u>3.05</u>	<u>1.16</u>	<u>2.39</u>	<u>1.00</u>	<u>2.05</u>
Season Totals	6.69	3.74	3.45	3.22	3.47
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Dec. 19 (80 days)			
October	3.27	2.53	0.75	2.18	1.09
November	3.67	1.33	2.34	1.14	2.53
December	<u>1.37</u>	<u>0.98</u>	<u>0.89</u>	<u>0.84</u>	<u>0.53</u>
Season Totals	8.31	4.84	3.98	4.16	4.15
Crop: <u>Vegetables, small</u>		Growing Season: Oct. 1 - Jan. 8 (100 days)			
October	3.11	2.50	0.60	0.16	2.95
November	3.61	1.32	2.28	2.17	1.44
December	2.76	0.96	1.80	1.48	1.28
January	<u>0.50</u>	<u>0.50</u>	<u>0.50</u>	<u>0.50</u>	<u>0.00</u>
Season Totals	9.98	5.28	5.18	4.31	5.67
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Nov. 30 (30 days)			
November	<u>3.59</u>	<u>1.86</u>	<u>1.74</u>	<u>1.60</u>	<u>1.99</u>
Season Totals	3.59	1.86	1.74	1.60	1.99
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 - Dec. 30 (60 days)			
November	2.89	1.79	1.10	1.54	1.35
December	<u>2.72</u>	<u>1.03</u>	<u>2.19</u>	<u>0.89</u>	<u>1.83</u>
Season Totals	5.61	2.82	3.29	2.43	3.18
Crop: <u>Vegetables, small</u>		Growing Season: Nov. 1 – Jan. 19 (80 days)			
November	2.63	1.76	0.87	1.51	1.12
December	3.22	0.99	2.23	0.85	2.37
January	<u>1.32</u>	<u>0.94</u>	<u>0.87</u>	<u>0.81</u>	<u>0.51</u>
Season Totals	<u>7.17</u>	<u>3.69</u>	<u>3.97</u>	<u>3.17</u>	<u>4.00</u>

Table FL4-6 Irrigation Water Requirements – Inches (cont.)

Climatic Zone:	7				
	Normal Year			Dry Year	
Month	Monthly Consumptive Use	Effective Rainfall	Net Irrigation Requirement	Effective Rainfall	Net Irrigation Requirement
Crop:	<u>Vegetables, small</u>		Growing Season: Nov. 1 - Feb. 8 (100 days)		
November	2.50	1.75	0.75	1.51	1.00
December	3.17	0.98	2.18	0.84	2.33
January	2.68	1.09	1.59	0.94	1.74
February	<u>0.53</u>	<u>0.53</u>	<u>0.50</u>	<u>0.46</u>	<u>0.07</u>
Season Totals	8.88	4.35	5.02	3.74	5.14
Crop:	<u>Vegetables, small</u>		Growing Season: Dec. 1 - Dec. 30 (30 days)		
December	<u>3.18</u>	<u>1.14</u>	<u>2.04</u>	<u>0.98</u>	<u>2.20</u>
Season Totals	3.18	1.14	2.04	0.98	2.20
Crop:	<u>Vegetables, small</u>		Growing Season: Dec. 1 - Jan. 29 (60 days)		
December	2.61	1.10	1.51	0.95	1.66
January	<u>2.56</u>	<u>1.01</u>	<u>2.05</u>	<u>0.87</u>	<u>1.69</u>
Season Totals	5.17	2.11	3.56	1.81	3.36
Crop:	<u>Vegetables, small</u>		Growing Season: Dec. 1 - Feb. 18 (80 days)		
December	2.35	1.09	1.26	0.94	1.41
January	3.08	1.11	1.97	0.95	2.13
February	<u>1.29</u>	<u>0.91</u>	<u>0.88</u>	<u>0.78</u>	<u>0.51</u>
Season Totals	6.72	3.11	4.11	2.67	4.05
Crop:	<u>Vegetables, small</u>		Growing Season: Dec. 1 – March 31 (100 days)		
December	2.15	1.07	1.07	0.92	1.23
January	2.90	1.10	1.80	0.95	1.95
February	2.92	0.96	1.96	0.83	2.09
March	<u>2.79</u>	<u>0.97</u>	<u>2.32</u>	<u>0.83</u>	<u>1.96</u>
Season Totals	10.76	4.10	7.15	3.53	7.23

Table FL4-7 Recommended Peak Consumptive Use Rates, Inches/Day

Climatic Zone 1	Peak Consumptive Use Rate, Inches/Day
Alfalfa	0.31
Corn, grain	0.23
Cotton	0.27
Grain, spring	0.08
Grapes	0.17
Melons & cantaloupes	0.19
Orchards	0.31
Pasture grasses	0.25
Peanuts	0.29
Sorghum, grain	0.30
Soybeans	0.25
Tomatoes	0.22
Vegetables, small	
Planting: September through February	0.16
Planting: March through August	0.20

Climatic Zone 2	Peak Consumptive Use Rate, Inches/Day
Blueberry	0.23
Citrus	0.19
Corn, grain	0.23
Corn, sweet	0.24
Cotton	0.28
Grain, spring	0.09
Grapes	0.17
Melons & cantaloupes	0.19
Orchards	0.31
Pasture grasses	0.25
Peanuts	0.29
Potatoes, Irish	0.17
Sorghum, grain	0.25
Soybeans	0.26
Strawberries	0.13
Tobacco	0.23
Tomatoes	0.21
Vegetables, small	
Planting: September through February	0.17
Planting: March through August	0.20

Table FL4-7 Recommended Peak Consumptive Use Rates, Inches/Day (cont.)

Climatic Zone 3	Peak Consumptive Use Rate, Inches/Day
Citrus	0.19
Corn, grain	0.20
Corn, sweet	0.24
Grapes	0.17
Melons & cantaloupes	0.16
Orchards	0.31
Pasture grasses	0.25
Sorghum, grain	0.25
Soybeans	0.25
Vegetables, small	
Planting: September through February	0.17
Planting: March through August	0.20

Climatic Zone 4	Peak Consumptive Use Rate, Inches/Day
Blueberries	0.23
Cabbage	0.18
Citrus	0.19
Corn, grain	0.20
Corn, sweet	0.25
Melons & cantaloupes	0.16
Pasture grasses	0.25
Potatoes	0.16
Strawberries	0.13
Tomatoes (early)	0.15
Tomatoes (late)	0.23
Vegetables, small	
Planting: September through February	0.18
Planting: March through August	0.20

Climatic Zone 5	Peak Consumptive Use Rate, Inches/Day
Avocado	0.20
Citrus	0.19
Corn, sweet	0.20
Melons & cantaloupes	0.15
Pasture grasses	0.25
Rice	0.31
Tomatoes (early)	0.24
Tomatoes (late)	0.25
Sugarcane	0.31
Vegetables, small	
Planting: September through February	0.18
Planting: March through August	0.20

Table FL4-7 Recommended Peak Consumptive Use Rates, Inches/Day (cont.)

Climatic Zone 6	Peak Consumptive Use Rate, Inches/Day
Avocado	0.20
Citrus	0.19
Corn, sweet	0.18
Melons & cantaloupes	0.13
Pasture grasses	0.25
Vegetables, small	
Planting: September through February	0.18
Planting: March through August	0.21

Climatic Zone 7	Peak Consumptive Use Rate, Inches/Day
Avocado	0.21
Citrus	0.20
Vegetables, small	
Planting: September through February	0.19
Planting: March through August	0.22

Table FL4-8 Example Soil-Water Budget

Month	Crop ET	Soil water used	Precipitation		Irrigations		Water	
			Total	Effect ^{1/}	No.	Net water applied	Deficit	Surplus ^{2/}
Feb	0.31	0.31	4.10	0.31	0	0	0	0
March	2.00	2.00	4.05	1.84	0	0	0.16	
April	4.19	4.35	2.87	1.54	4	2.68	0.13	
May	5.70	5.83	3.70	2.09	6	4.02		0.28
June	3.26	3.26	6.07	2.78	1	0.67		0.19
Total	15.46	15.75		8.56	11	7.37		0.47

^{1/} Assuming all effective precipitation infiltrated into the soil.

^{2/} Typically lost to deep percolation. The total is in inches.