

### Irrigation Planning Worksheet

OWNER/OPERATOR \_\_\_\_\_ FIELD OFFICE \_\_\_\_\_  
 JOB DESCRIPTION \_\_\_\_\_  
 LOCATION \_\_\_\_\_  
 ASSISTED BY \_\_\_\_\_ DATE \_\_\_\_\_

**Soil—Data for limiting soil**

Soil series	Percent of area (%)	Cumulative AWC					Depth to restrictive layer <sup>1</sup>	Intake fam., grp. max. rate
		1 ft (in)	2 ft (in)	3 ft (in)	4 ft (in)	5 ft (in)		

<sup>1</sup> Actual observed depth in the field

**Maximum time between irrigations for any method/system based on peak crop ET**

Crop	Management root zone (ft)	Total AWC (in)	MAD percent (in)	Maximum net replacement		Peak daily crop ET (in/d)	Maximum irrigation frequency (days)
				(in/d)	(days)		

**Minimum system flow requirement for irrigation system**

System description	Depth of irrigation application			Peak daily crop ET (in/d)	Max. irrig. frequency (days)	Minimum system flow requirement total flow	
	Net (F <sub>N</sub> ) (in)	Efficiency (%)	Gross (F <sub>G</sub> ) (in)			(gpm)	(ft <sup>3</sup> /s)

Minimum dependable flow available to system \_\_\_\_\_ gpm, ft<sup>3</sup>/s, inches, etc.

Total irrigated area \_\_\_\_\_ acres. Total operating hours per day \_\_\_\_\_ .

### Irrigation Planning Worksheet—Continued

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PREPARED BY \_\_\_\_\_

#### Weighted monthly crop evapotranspiration

The following process is used where more than one crop is grown under the same irrigation system; i.e., several fields, farm group, district.

Crop	Acres (ac)	Monthly crop evapotranspiration - ET <sub>C</sub>							
		Depth <sup>1</sup> (in)	Volume <sup>2</sup> (ac-in)	Depth <sup>1</sup> (in)	Volume <sup>2</sup> (ac-in)	Depth <sup>1</sup> (in)	Volume <sup>2</sup> (ac-in)	Depth <sup>1</sup> (in)	Volume <sup>2</sup> (ac-in)
Total									
Weighted average crop ET <sup>3</sup>									

#### Computed peak daily crop evapotranspiration<sup>4</sup>

Net irrigation depth applied (f <sub>n</sub> ) (in)	Highest weighted monthly average crop ET (in)	Peak period average daily crop ET (in)

- 1 Calculated monthly crop ET, inches.
- 2 Calculated volume of water needed monthly crop ET = ac x ET<sub>C</sub> = \_\_\_\_\_ acre-inches.
- 3 Calculated weighted monthly crop ET = Total Volume/ Total Area = \_\_\_\_\_ inches.
- 4 Determined from table 2-55, Part 623, Chapter 2, Irrigation Water Requirements, or from formula:

$$ET_d = 0.034 ET_m^{1.09} F_n^{-0.09},$$

Where: ET<sub>d</sub> = average daily peak crop ET  
ET<sub>m</sub> = average crop ET for peak month  
F<sub>n</sub> = net depth of water application per irrigation