

Cooperator: _____ Job No.: ____ Date: _____ Sheet ____ of ____

	CROP NUMBER				
6. Crop Information	1	2	3	4	5
Kind of Crop					
Acreage to be irrigated (acres) ^{1/}					
Rooting depth (in.)					
Peak use rate (in./day)					
7. Soil Information					
Weighted AWC for rooting depth (in./in.)					
Basic intake rate (in./hr.)					
8. Design Procedure					
AWC within root zone (in.)					
Depletion allowed prior to irrigation (%)					
Net water applied per irrigation (in.)					
Water application efficiency (%)					
Gross water applied per irrigation (in.) ^{1/}					
Irrigation interval (days)					
Irrigation period (days per irrigation) ^{1/}					
Hours operating per day ^{1/}					
Q _R ^{1/} = Quantity of water required (gpm)					
9. Irrigation Unit Design					
Q _A ^{2/} = Quantity of water actual (gpm)					
Application rate (in./hr) ^{3/}					
Travel Speed (ft/min) ^{4/}					
Time per ____ ft run (hrs) ^{5/}					

10. Sprinkler Specifications:

- a. Lane Spacing _____ ft
- b. Nozzle Size _____ in., Wetted Diam. _____ ft Capacity _____ gpm @ _____ psi
 Make and model of sprinkler _____
- c. No. of sprinklers operating simultaneously _____
- d. Total design capacity all sprinklers _____ gpm

$$1/ Q_R = \frac{453 \times \text{acres} \times \text{inches gross application}}{\text{hours opr. per day} \times \text{days per irrigation}} = \text{_____ gpm}$$

$$2/ Q_A \text{ must be } \geq Q_R$$

$$3/ \text{Application rate, in./hr} = \frac{110.0 \times \text{sprinkler gpm}}{\text{Area of wetted circle, sq. ft.}} \quad (\text{MUST BE } \leq \text{BASIC INTAKE RATE})$$

$$4/ \text{Travel Speed, ft/min} = \frac{1.605 \times \text{sprinkler gpm}}{\text{Lane Spacing, ft} \times \text{gross water applied, in.}}$$

$$5/ \text{Time per run, hrs.} = \frac{\text{Length of run, ft.}}{\text{Travel Speed, ft/min} \times 60}$$

