

SPRINKLER IRRIGATION DATA SHEET

Conservation District \_\_\_\_\_ Field Office \_\_\_\_\_

Cooperator \_\_\_\_\_ Location \_\_\_\_\_

Identification No. \_\_\_\_\_ Field No. \_\_\_\_\_

1. Design area \_\_\_\_\_ acres

Resource area \_\_\_\_\_ Design soil unit \_\_\_\_\_

Description of soils \_\_\_\_\_

2. Crops: 1. \_\_\_\_\_, \_\_\_\_\_ acres

2. \_\_\_\_\_, \_\_\_\_\_ acres

3. \_\_\_\_\_, \_\_\_\_\_ acres

4. \_\_\_\_\_, \_\_\_\_\_ acres

Total \_\_\_\_\_ acres

3. Water supply:

Source of supply: (stream, well, reservoir, etc.) \_\_\_\_\_

Reservoir: Storage \_\_\_\_\_ ac. ft. Available for Irrigation \_\_\_\_\_ ac.ft.

Well: Measured capacity \_\_\_\_\_ G.P.M. Static level \_\_\_\_\_ ft.

Maximum pumping lift \_\_\_\_\_ ft.

Conductance of irrigation water \_\_\_\_\_

SAR of irrigation water \_\_\_\_\_

Is water suited for sprinkler irrigation? \_\_\_\_\_

Distance supply source to field \_\_\_\_\_ ft.

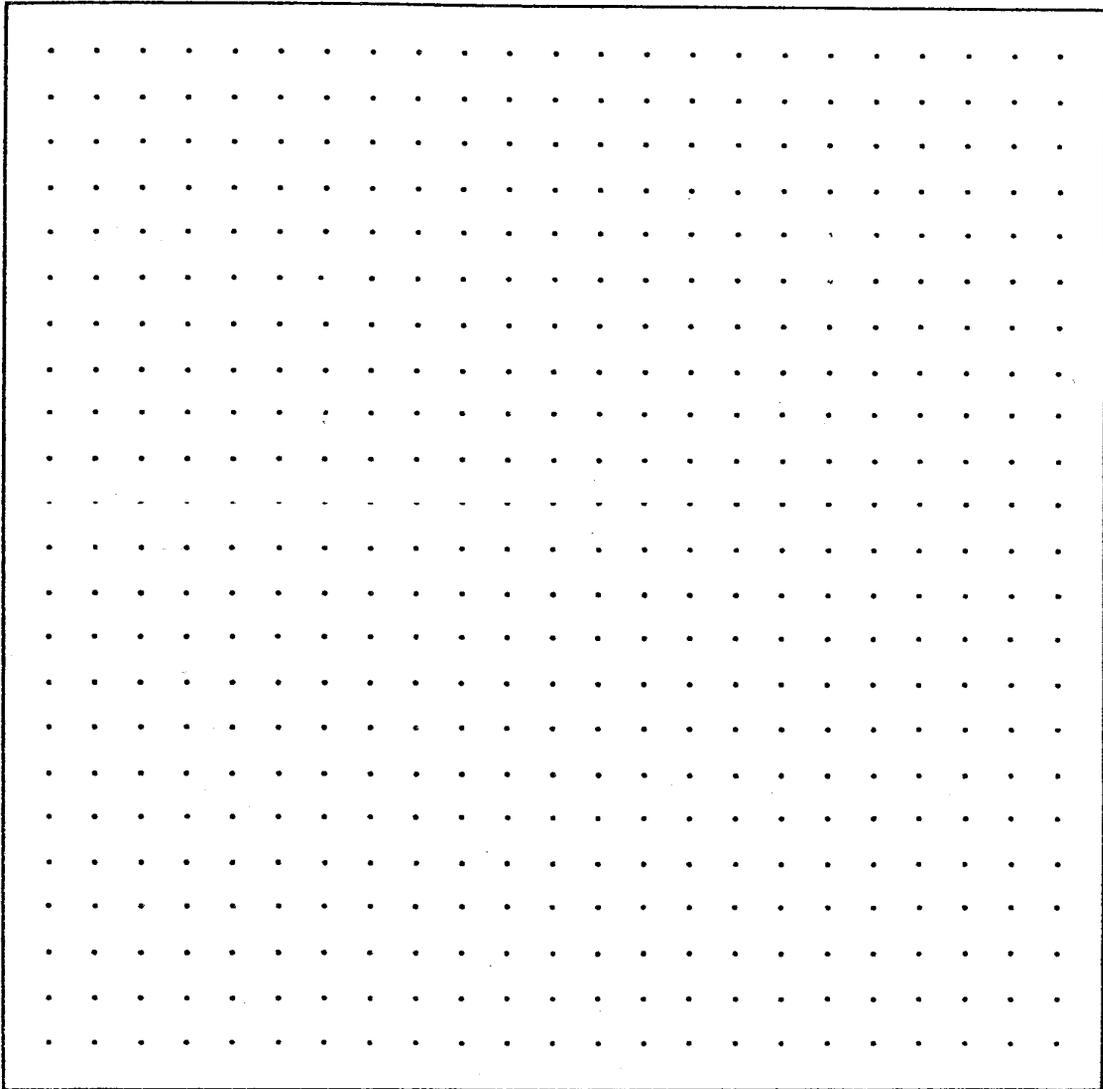
Elev. dif. source to field (plus or minus) \_\_\_\_\_ ft.

4. Other data:

Number of moves desired per day \_\_\_\_\_

Type of power to be used \_\_\_\_\_

5. Map of design area - Scale 1" = \_\_\_\_\_ ft.  
Sketch map on grid or attach photo or overlay.



Sketch map should show:

- |                                |   |
|--------------------------------|---|
| a. Source of water             | e. Plan of operation                                    |
| b. Major elevation differences | f. Field obstructions (gullies, trees, buildings, etc.) |
| c. Row direction               |   |
| d. Sprinkler system layout     | g. North arrow  |

6. Soil Information	Field Number		
Soil (unit, name, group)			
Moisture holding capacity (in/ft)			
Basic intake rate (in/hr)			

7. Crop Information			
Kind of crop			
Acreage to be grown			
Moisture extraction root depths (ft)			

8. System Specifications			
Sprinkler spacing			
Lateral spacing			
Laterals (1) Max. Length			
Pipe size			
No. of sprinklers			
(2) Max. Length			
Pipe size			
No. of sprinklers			
Total no. of laterals			
Laterals operating together			
Total no. of sprinklers			
Total Q available (GPM)			
Nozzle capacity (GPM)			
Nozzle size			
Nozzle pressure (psi)			
Pressure loss in lateral line (psi)			

9. Design Procedure			
Application rate (in/hr)			
Time per lateral set			
Gross application (in)			
Application efficiency (%)			
Net application (in)			
Lateral settings per day			
Days of operation per interval			
*Quantity of water required (gpm)			
Use rate (in/day)			
Irrigation interval (days)			

$$*Q = 453 \times \text{ac.} \times \text{in. gross application} = \text{GPM}$$

$$\text{hrs. operation/day} \times \text{days/irrigation}$$

				Field Number					
10. Outlet Valves									
Type									
Size									
Number									
Spacing									
11. Main Line Design									
Pipeline Material									
		Friction Loss Ft/100 Ft.							
GPM	Length	Pipe Dia. ____ in.	Pipe Dia. ____ in.	PSI	FT	PSI	FT	PSI	FT
12. Over-all System Requirements									
Sprinkler pressure at first nozzle									
Misc. and fitting losses									
Elevation difference									
Pump discharge pressure									
Pumping lift									
Total Head									
13. Pump Requirements									
Capacity (gpm)									
PSI or ft. of head									
Power requirements BHP									
14. Appurtenances									
Type									
Size									
Number									
Location									
15. Remarks									
Designed By _____				Date _____					
Approved By _____				Date _____					
Checked By _____				Date _____					
Coop. Accep. _____				Date _____					