Section 8 of 22 (8f - Field Irrigation Evaluation Example Guide – Form)

Producer:	Border width:	% Slope:
Date:	Border Length:	Soil Intake Family:
Crop:	Total acres:	Flow per Border:
Plant Height:	Soil type:	Irrigation System:

- Irrigation Date: 7/15/2007; Irrigated with a High Flow Turn Out (flow rate/border = 7.5 cfs)
- Irrigation Started at 9:15 am & Ended at 11:15 am (Irrigation Time = 2.0 hrs.)
- Field has been laser leveled

- Crop: Alfalfa; Soil Intake Family: 0.6
- Border width = 436 ft. & length = 600 ft. (6-acres)
- Soil: Silt Loam; % Slope: 0.1ft./100 ft.

Total depth applied (using *QT = DA): 2.5 inches applied(2.0" was needed)

Important:

Compare Opportunity Time with Infiltration Time (i.e., to get ≈ inches applied)

Soil Texture	Avail. Water (in./ft.)	Irrigation Range(cb)	Field Evaluation Zone	Border Length measurement (ft.)	Border Length measurement (ft.)	Irrigation Water Advance	Irrigation Water Advance	Irrigation Water Recession	Irrigation Water Recession	Opportunity Time (Hrs.)	Opportunity Time (Hrs.)
Sands	0.5	30 - 40	¼	150		9:35 am		12:20 pm		2.75	
Loamy Sands	1.0										
F. Sands	1.25										
V. F. Sands											
Loamy F. Sands											
Loamy V. F. Sands											
Sandy Loam	1.5	40 - 50	½	300		10:15 am		12:55 pm		2.67	
F. Sandy Loam											
V. F. Sandy Loam	2.0	50 - 60									
Loam											
Silt Loam			¾	450		10:50 am		1:23 pm		2.55	
Silt											
Sandy Clay Loam	2.2	60 - 70									
Silty Clay Loam											
Clay Loam			End of Field	600		11:25 am		2:00 pm		2.58	
Sandy Clay	2.0	70 - 80									
Silty Clay											
Clay											

Soils Intake Family	Inches Applied 1.0	2.0	3.0
	Infiltration Time (Hrs.)		
0.1	2.8	10.5	22.3
0.3	1.0	3.5	6.8
0.5	0.63	2.0	3.8
0.75	0.48	1.5	2.8
1.0	0.33	1.0	1.8
1.25	0.28	0.8	1.5
1.5	0.23	0.7	1.3
1.75	0.20	0.6	1.1

NRCS Surface Irrigation Program calculated an 81% application efficiency, Gross application of 2.48" and Runoff of 0.11" rudy.garcia.2008

* QT = DA (Q = flow rate (cfs); T = Irrigation Time (hrs.); D = Application Depth (inches); A = Area (Acres))

Agronomy Tech Note 76 (http://www.nm.nrcs.usda.gov/technical/handbooks/iwm/nmiwm.html)