

Micro Irrigation System Detailed Evaluation Worksheet

Land user _____ Date _____ Prepared by _____

District _____ County _____

Crop: _____ age _____ plant and row spacing _____

Soil: mapping unit _____ surface texture _____

actual depth _____ AWC _____ inches/feet

Irrigation: duration _____ frequency _____ MAD _____ % _____ inches/feet

Irrigation system hardware:

Filter: pressure at: inlet _____ psi, outlet _____ psi, loss _____ psi

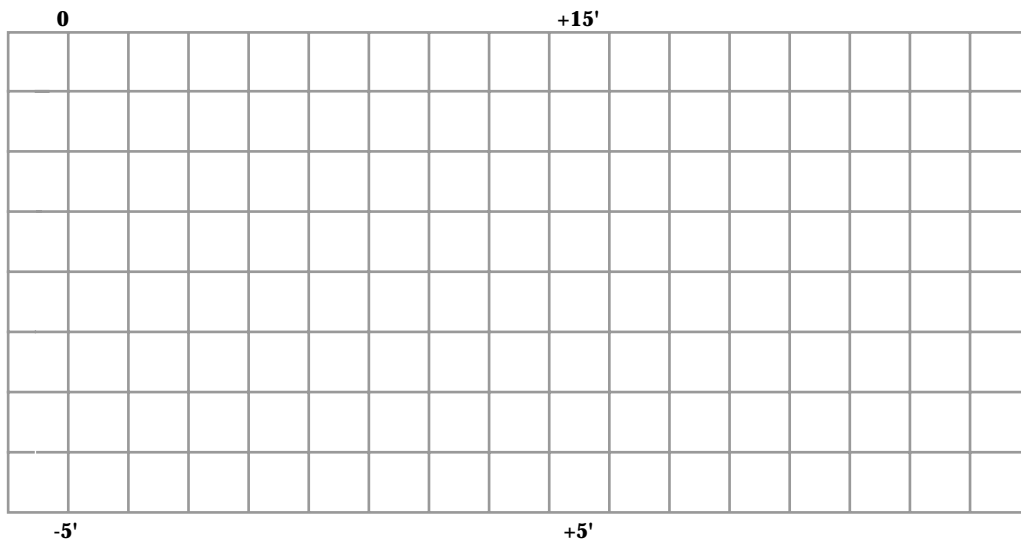
Emitter: manufacturer _____ type _____ spacing _____

Rated discharge per emitter (emission point): _____ gph at _____ psi

Emission points per plant _____ giving _____ gallons per plant per day

Later: diameter: _____ material _____ length _____ spacing _____

Sketch of micro irrigation system layout:



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System discharge: _____ gpm, number of manifolds _____ and blocks _____

Average test manifold emission point discharges at _____ psi

Manifold = $\frac{(\text{sum of all averages } \text{gph})}{(\text{number of averages})} = \text{_____ gph}$

Low 1/4 = $\frac{(\text{sum of low 1/4 averages } \text{gph})}{(\text{number of low 1/4 averages})} = \text{_____ gph}$

Adjusted average emission point discharges at _____ psi

System = (DCF _____) x (manifold average _____) = _____ gph

Low 1/4 = (DCF _____) x (manifold low 1/4 _____) = _____ gph

Discharge test volume collected in _____ minutes (1.0 gph = 63 ML/min)

Outlet location on lateral		Lateral location on the manifold							
		inlet end		1/3 down		2/3 down		far end	
		mL	gph	mL	gph	mL	gph	mL	gph
inlet end	A								
	B								
ave									
1/3 down	A								
	B								
ave									
2/3 down	A								
	B								
ave									
far end	A								
	B								
ave									

Micro Irrigation System Detailed Evaluation Worksheet (cont.)

Lateral: inlet pressure _____ psi _____ psi _____ psi _____ psi
 far end pressure _____ psi _____ psi _____ psi _____ psi
 Wetted area per plant _____ ft² _____ ft² _____ ft² _____ ft²
 _____ % _____ % _____ % _____ %

Estimated average SMD in wetted soil volume _____

Minimum lateral inlet pressures, MLIP, on all operating, manifolds:

Manifold ID: Test _____ _____ _____ _____ _____ _____ _____ _____ _____ Ave.
 pressure, psi _____ _____ _____ _____ _____ _____ _____ _____ _____

Discharge correction factor, DCF, for the system is:

$$DCF = \frac{2.5 \times (\text{average MLIP} \quad \text{psi})}{(\text{average MLIP} \quad \text{psi} + (1.5 \times \text{test MLIP} \quad \text{psi}))} = \quad \text{psi}$$

or if the emitter discharge exponent, x = _____ is known,

$$DCF = \frac{(\text{average MLIP} \quad \text{psi})}{(\text{test MLIP} \quad \text{psi})} \times \text{-----} = \quad \text{psi}$$

Comments: _____

