Effluent Irrigation Work Sheet

		Example:	*Your Number:*
1.	**Nutrient needs of crop (lbs/acre)** Recommendations based on soil test results and a realistic yield goal.	N= 180 P_2O_5= *95* K_2O= *40*	N= P_2O_5= K_2O=
2.	**Total nutrient value of effluent (lbs/1000gal)** Based on manure analysis of a representative sample collected close to time of application.	N= *5.2* P_2O_5= *1.3* K_2O= *5.9*	N= P_2O_5= K_2O=
3.	**Determine available nutrients (lbs/1000gal)** Multiply the value from Step 2 by nutrient availability, 50% for N and 90% for P and K	N= *2.6* P_2O_5= *1.2* K_2O= *5.3*	N= P_2O_5= K_2O=
4a.	**Calculate application rates to supply N and, P_20_5 needs. (1000gal/acre)** Divide values from Step 1 by values from Step 3.	N= *69* P_2O_5= *79*	N= P_2O_5=
4b.	**Choose between N or P_2O_5 application rate (1000gal/acre)** Select the highest rate calculated in Step 4a for using effluent as a complete fertilizer. Select the lowest rate for maximizing nutrient use.	Rate = *69* *(based on N for this example)*	Rate =
4c	**Determine total depth of irrigation (inch)** Divide application rate in 1000 gal/acre from Step 4b by 27 to get irrigation depth in inches.	Depth = *2.6*	Depth =
5.	**Determine numbers of application needed to apply total irrigation depth.** Most soils cannot accept the total irrigation depth in one application. Divide total irrigation depth in 4c by acceptable application depth for average soil conditions	*5* (*based on 1/2 inch per application)*	
6a.	**Determine amount of nutrients applied at chosen rate (lbs/acre)** Multiply the rate chosen in Step 4b, by available nutrients, Step 3.	N= *180* P_2O_5= *83* K_2O= *366*	N= P_2O_5= K_2O=
6b.	**Determine supplemental nutrients (lbs/acre)** Subtract the nutrients applied, Step 4e, from nutrients needed, Step 1. If the difference is negative, enter 0.	N= 0 P_2O_5= 12 K_2O= *0*	N= P_2O_5= K_2O=