Manure Application Rate Calculation Work Sheet

		Example:	*Your Number:*
Step 1	**Nutrient needs of crop (lbs/acre)**	N= *__180___*	N= _____
	Recommendations based on soil test results and a realistic yield goal.	P_2O_5= *___95___*	P_2O_5= _____
		K_2O= *___40___*	K_2O= _____
Step 2	**Total nutrient value of effluent (lbs/1000gal.)**	N= *___5.2___*	N= _____
	Based on manure analysis of a representative sample collected close to time of application.	P_2O_5= *___1.3___*	P_2O_5= _____
		K_2O= *___5.9___*	K_2O= _____
Step 3	**Determine available nutrients (lbs/1000gal)**	N= *___2.6___*	N= _____
	Multiply the value from Step 2 by nutrient availability, 50% for N and 90% for P and K	P_2O_5= *___1.2___*	P_2O_5= _____
		K_2O= *___5.3___*	K_2O= _____
Step 4	**Calculate the rates of application needed for N, P and K (1000gal/acre)**	N= *___69___*	N= _____
	Divide values from Step 1 by values from Step 3.	P_2O_5= *___79___*	P_2O_5= _____
		K_2O= *___7.5___*	K_2O= _____
Step 5	**Select the rate of effluent to be applied (1000gal/acre)**		
	Choose the nutrient for which the manure rate is to be based. Select the highest of three if manure is used as a complete fertilizer; select the lowest for maximum nutrient use efficiency.	Rate= *___69___* *(based on N needs for this example)*	Rate= _____
Step 6	**Determine amount of available nutrients being applied (lbs/acre)**	N= *__180___*	N= _____
	Multiply the rate chosen in Step 5, by available nutrients, Step 3.	P_2O_5= *___83___*	P_2O_5= _____
		K_2O= *__366___*	K_2O= _____
Step 7	**Determine amount of supplemental nutrients needed (lbs/acre)**	N= *___0____*	N= _____
	Subtract the nutrients being applied, Step 6 from nutrients needed, Step 1. If the difference is negative, more nutrients applied than needed.	P_2O_5= *___12___*	P_2O_5= _____
		K_2O= *___0____*	K_2O= _____
Step 8	**Determine total depth of application (acre-inch)**	=*__2.6_*Acre-inches	=_____Acre-inches
	Divide gal/acre from Step 5 by 27,000 to get irrigation depth needed to provide nutrients.		
Step 9	**Determine number of application and amount of each application**	1st= *1.0* Acre-inch	1st=____Acre-inch
	Based on growth stages and crop nutrient needs at each growth stage, and amount of nutrients applied each time.	2nd= *0.8* Acre-inch	2nd=____Acre-inch
		3rd= *0.8* Acre-inch	3rd=____Acre-inch