PLANNING ANIMAL WASTE MANAGEMENT SYSTEMS

1. Cooperator: _____ Date: _____

2. Location: _____

3. Animal date:

   Type of livestock or poultry_____, Breed _____, Weight _____ lb

   Number or livestock to use system _____

4. Daily waste production:

   Animal waste volume = (_____ animals)(_____ gpd/animal) = _____ gpd

   Daily wash water = _____ gpd

   Total daily waste volume = _____ gpd

   Total annual volume = _____ gallons

5. Disposal area:

Field	Acres	Crops	Yield	Fertilization Requirements #N/Ac.	#P/Ac.	#K/Ac.

6. Nutrients in animal wastes:

   Nutrients per day for 1000 lb of animal weight

   # _____ N, # _____ ?, # _____ K

   Storage method: _____

   Nitrogen loss during storage _____ %

   Nitrogen remaining in manure; 100% − _____ % = _____ %

   Annual fertilizer available from animal wastes:

   N: (_____animals)(_____ # animal)(_____ #N/da−1000#)(365 da/yr)(0._____) = _____ #N/yr

   P: (_____animals)(_____ # animal)(_____ #P/da−1000#)(365 da/yr) = _____ #P/yr

   K: (_____animals)(_____ # animal)(_____ #K/da−1000#)(365 da/yr) = _____ #K/yr

7. Fertilization rates from animal wastes:

   Annual application: $\frac{(\text{\_\_\_\_\_ gallons})}{(\text{\_\_\_\_\_ acres})}$ = _____ gallons/acre

   Nutrients per 1000 gallons:

   N: $\frac{(\text{\_\_\_\_\_ \#N/yr})(1000 \text{ gallons})}{(\text{\_\_\_\_\_ gallons})}$ = _____ #N/1000 gallons

   P: $\frac{(\text{\_\_\_\_\_ \#P/yr})(1000 \text{ gallons})}{(\text{\_\_\_\_\_ gallons})}$ = _____ #P/1000 gallons

   K: $\frac{(\text{\_\_\_\_\_ \#K/yr})(1000 \text{ gallons})}{(\text{\_\_\_\_\_ gallons})}$ = _____ #K/1000 gallons

Mineralization Rates

Year	#N/Acre	#P/Acre	#K/Acre
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

NOTE: Compare with crop requirements in Section 5.

(1) If fertilizer requirements of crops exceed the mineralization rates, supplemental commercial fertilization may be required for optimum crop growth.

(2) If the mineralization rates exceed the requirements for the crop, a change in the crops or the handling methods are required to balance the animal waste management system.

8. Storage Requirements:

Storage time required: _____ days

Waste storage volume: (_____ days)(_____ gpd) = _____ gallons

Drainage area runoff volume during storage time:

(_____ inches runoff)(_____ sq ft)(0.62) = _____ gallons

Total storage volume = _____ gallons

Storage Facility:

Capacity: _____ gallons or _____ cubic feet

Type _____ Length _____ ft., Width _____ ft., Depth _____ ft.

Type _____ Length _____ ft., Width _____ ft., Depth _____ ft.

9. Distribution System:

Honey wagon: _____ gallons

Dry spreading: _____ cubic yards

Sprinkler discharge: _____ gpm

Other distribution systems: _____

10. Special Design Requirements for system: (Existing facilities and how they will be used.)

_____

_____

_____

_____

_____

Evaluated by: _____
NRCS Representative