

SCOE NIMP

TABLE 9. NUTRIENT BALANCE FOR AREAS WHERE MANURE IS DEPOSITED AND COLLECTED FOR LAND APPLICATION

Design Parameters: 4521 beef cattle
 (Annual Average Values) 2400 lactating cows
 400 dry cows/springers

Location	Percent Time Dairy Herd Spends in Given Area	N Deposited (lbs-N/yr)	Collection Method	N Removal Rate as solids (lbs-N/yr)	N Removal Rate* in the Waste Management System 30% (lbs-N/yr)	N to Sprayfield (lbs-N/yr)	Removal before Sprayfield excl. past. (%)
Suwannee Farms							
Beef Cattle in Stacked Bed	100%	751485	Scraped	601188**	45089	105208	86%
Lactating in Parlor	15%	90000	Flush	0	27000	63000	30%
Lactating in Freestalls	85%	510000	Flush	0	153000	357000	30%
Dry/Springers in Freestalls	100%	72000	Flush	0	21600	50400	30%
Total		1423485		601188	246689	575608	60%

* N removal due to volatilization and solids removal

** 80% of solids and associated N from cattle barns is assumed to be directly land applied

N Based

Designed N Application/Acre

Area of Sprayfield Needed:

Sprayfield Available:

Solids

Area needed for Separated Solids

Available

291 lbs-N/ac/yr
 1385 acres
 2195 acres

Comments:

Assumes 30% additional volatilization loss after application to field

1457 acres
 1872 acres
 Assumes 50% additional volatilization loss after application to field