EXAMPLE CAO CALCULATIONS

The following is an example of an AEU per acre calculation (Continued from Page 5)

Example farm data

Animal inventory: 110 dairy cows @ 1,300 lb average weight each
35 heifers @ 900 lb average weight each
20 calves @ 375 lb average weight each
15,000 heavy broilers @ 3 lb average weight each

Production period: Cows = 365 day per year
Broilers = 5 flocks for 57 days each, or 285 days per year

Land inventory: Farmstead = 5 acres
Woodland = 3 acres
Pasture = 4 acres
Cropland, home farm = 60 acres
Cropland, rented farm = 36 acres

Using this example data and the worksheet, the calculation of animal density (AEUs per acre) for this farm would be as follows

Animal type	No. animals	x animal weight (lb)	x prod. days	÷ factor =	AEU
Dairy	110	x 1300	x 365	– 365,000 =	1430
Heifers	35	x 900	x 365	– 365,000 =	315
Calves	20	x 375	x 365	– 365,000 =	15
Broilers	15,000	x 3	x 285	– 365,000 =	3514
		x	x	– 365,000 =	
		x	x	– 365,000 =	
		x	x	– 365,000 =	
				Total =	2114
			Acres available for manure*		– 100
			AEUs/acre		= 2.1

*Includes only cropland and pastures

nutrients than can be fully used by the crops grown on the farm. Thus, nutrient management plans often will describe on-farm manure utilization, and procedures for moving some manure off the farm.

Other Required Plans

Farms receiving financial assistance for nutrient management, such as from the Chesapeake Bay Program, will be required to have a nutrient management plan. Any farm that violates the Clean Streams Law also may be required to develop a nutrient management plan.

Voluntary Plans

Farms with fewer than two AEUs per acre are encouraged to voluntarily develop nutrient management plans. Nutrient management plans, whether required or voluntary, can improve farm profits, help protect the environment, provide some protection from liability, and enhance the image with the general public of agriculture as a good steward of our natural resources.

For More Information

For more information, contact your local Penn State Cooperative Extension office or your local Conservation District. For a summary of the Nutrient Management Act and regulations, see Penn State Agronomy Facts 40, Nutrient Management Legislation and Regulations in Pennsylvania: A Summary, which is available from your local Penn State Cooperative Extension office.

Table 1. Standard animal weights used to calculate animal equivalent units to identify concentrated animal operations.

Type of animal	Standard weight (lb) during production (range)
Swine	
Nursery pig	30 (15–45)
Finishing pig	145 (45–245)
Gestating sow	400
Sow and litter	470
Boar	450

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