

# Survey of Tennessee Poultry Farms to Determine the

## Production and Use of Poultry Manure

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### ABSTRACT

On January 12, 2002, the Environmental Protection Agency (EPA) published a proposal to revise and update animal waste and water quality regulations for concentrated animal feeding operations (CAFO). After public review, EPA published the final regulations on February 12, 2003. Because of some requirements in the final regulations, it is important to know the location, amount and utilization of manure on Tennessee poultry farms.

A survey of Tennessee poultry farms was conducted to obtain data about the location, number and type of poultry farms and third-party manure haulers. In addition, poultry producers were asked to provide estimates about the amount of poultry manure produced and utilized in the owner's farming operation; the amount of poultry manure moved off-farm by nearby farmers, and the amount of poultry manure moved off-farm by third-party poultry manure haulers. Poultry company service technicians provided assistance with the survey by contacting poultry producers under their supervision.

The survey revealed there were 727 poultry farms in Tennessee that produced an estimated 232,204 tons of poultry manure annually. Approximately 123,412 tons of poultry manure were used in the farm owners' operation; 49,282 tons were moved off-farm by poultry manure haulers; 33,852 tons were moved off-farm by the farm owners and; 25,658 tons were moved off-farm by nearby farmers.

The movement of poultry manure off-farm probably will increase, because of CAFO regulations that require manure to be land-applied based on soil phosphorous levels and crop phosphorous needs. Because of naturally occurring high soil phosphorous conditions in some areas of Tennessee, poultry producers in those areas may have to limit the amount of poultry manure being used on their own farms. Six counties have been identified having poultry farms and high soil phosphorous levels, resulting in the possibility of having to transport poultry manure out of the county.

The information obtained in the poultry manure survey was used in (1) developing and implementing Extension animal waste programs; (2) updating Tennessee's CAFO regulations, (3) providing information to EPA for the final CAFO regulations, and (4) developing an educational program for third-party poultry manure haulers.

Table 1. Production and Utilization of Poultry Manure in Tennessee

Type of Bird	Tons of Litter	Manure Used In Owner's Farming Operation	Manure Removed by Manure Hauler (tons)	Manure Removed from Farm by Owner	Manure Removed by Nearby Farmers
Broiler	189,848	97,740	42,291	28,169	21,648
	Percent	51.5	22.3	14.8	11.4
Breeder	34,269	21,160	6,562	4,407	2,140
	Percent	61.7	19.2	12.9	6.2
Replacement	8,087	4,512	429	1,276	1,870
	Percent	55.8	5.3	15.8	23.1
Total	232,204	123,412	49,282	33,852	25,658
	Percent	53.1	21.2	14.6	11.1

Figure 1. Map of Tennessee Showing Number of Poultry Farms by County

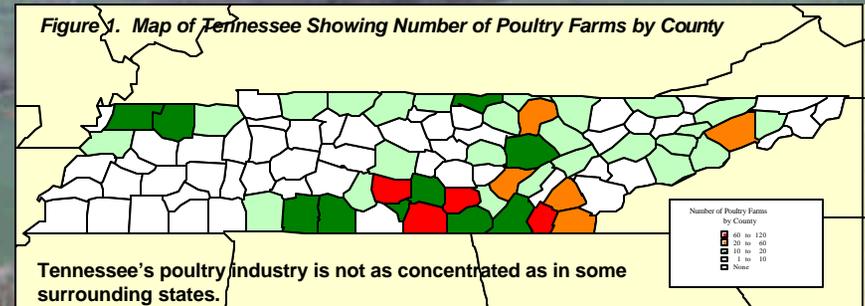


Figure 2. Map of Tennessee Showing Tons of Manure by County

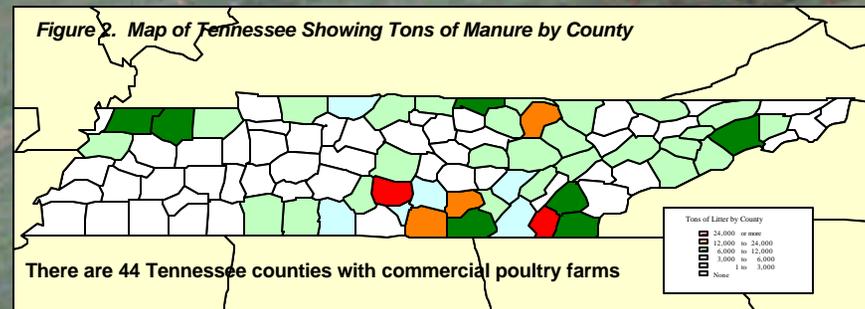


Figure 3. Map of Tennessee Showing Phosphorous Ratios by County

