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Facts for County Planners: Zoning Issues and Poultry Production

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Poultry production is the number one agricultural enterprise in Georgia, accounting for approximately 50 percent of the value of farm products produced. Modern poultry farming originated in north Georgia in the late 1940s and has continued to expand across Georgia as consumer demand for poultry products has increased. Georgia ranks number one in poultry production in the United States with more than 4,000 family-owned poultry farms producing more than \$5 billion annually in farm gate value. Georgia poultry farmers are among the best in the world at growing chickens using state-of-the-art technology, housing systems, and best management practices. To protect this vital business for Georgia farmers, it is important that agricultural zoning ordinances be prudently devised and factually based.⁽¹⁾ County planners and decision makers should consider the following facts about poultry farming.

Economic Impact

Poultry farms make significant contributions to the local economy. An average-size poultry farm (four houses) represents more than \$800,000 in housing and equipment investments alone and results in more than \$160,000 annually in gross income,⁽²⁾ most of which supports the local economy. In addition, the average-size poultry farm pays between \$4,000 and \$6,000 in annual local property taxes just for production houses. Thus, a county with 100 poultry houses will have in excess of \$4 million annually in gross farm income just from poultry production, and the owners of these houses will pay in excess of \$100,000 in property taxes each year.

The economic importance of poultry production for Georgia farmers and local communities is well documented. According to a University of Georgia study,⁽³⁾ total farm incomes for counties with poultry production were significantly greater than total farm incomes for counties without poultry. This study also reported that net farm income for poultry counties was almost three times the value of those for non-poultry-producing counties.

Environmental Considerations

Opponents of poultry farming often contend that environmental pollution is a major problem associated with poultry farming. This is not only a distortion of the truth, but is a serious misrepresentation of the facts. A properly managed poultry farm will not pollute or cause environmental problems for its neighbors or the community; in fact, it can provide a valuable natural fertilizer for landowners.

Poultry farms produce manure nutrients as a by-product of growing birds. These nutrients have substantial value as organic fertilizer and are often applied to land in place of commercial fertilizers. These manure nutrients have the potential, like any fertilizer material, to cause water pollution problems if improperly handled. In reality, poultry litter has been applied to Georgia fields for more than 60 years with no evidence of causing any significant water pollution problems. In fact, poultry production and the associated application of poultry litter are considered primary reasons for the reclamation of once seriously depleted soils in north Georgia.

There are some legitimate concerns regarding the appropriate application of poultry litter. As a result, Georgia poultry growers are utilizing nutrient management plans (NMPs) to protect the state's water resources.⁽⁴⁾ The NMP program being used by poultry farmers was developed at the University of Georgia and approved by the Georgia Environmental Protection Division and the Georgia Department of Agriculture. Georgia's EPD has the authority and responsibility to intercede and regulate any farm in the state causing an environmental problem. This, however, has rarely been the case in Georgia.

Air Emissions from Poultry Houses

The adoption of the tunnel ventilation system for poultry houses, which places exhaust fans at one end of the house and concentrates the discharged air, has led to the perception by some people that these fans cause problems for neighbors. Exhausted air from these tunnel fans, however, only results in measurable air movement within about 100 feet from the poultry house. More importantly, research at the University of Georgia⁽⁵⁾ has demonstrated that the ammonia and particulate matter discharged from these houses are dispersed into the atmosphere very quickly after emission. At 100, 200, 300, and 500 feet from the fans, these particles could not be measured in any significant level. In this study, ammonia concentrations were less than one ppm 50 percent, 75 percent, 85 percent, and 90 percent of the time, respectively. After 500 feet, the levels were no different from those observed in normal air samples. In all measurements, the ammonia levels were significantly less than the lowest detectable ammonia threshold level of five ppm. These research-based facts do not support the contention that exhausted air from poultry houses is a source of damage for a neighbor's property or health. This is important information relative to establishing setbacks for poultry house locations and is discussed more fully in Extension Circular 931 "Facts for the County Planners: Set-Backs for Poultry Houses."⁽⁶⁾

Poultry Farms and Odors

Uninformed individuals often think that poultry farms smell so badly that no one can live near them. This is incorrect. The vast majority of poultry farms are family operated and, in most cases, the operators and their families live next to the production houses. Properly operated and managed poultry houses emit minimal odor. This is due to advancements in ventilation and drinking systems that keep poultry houses relatively dry and free of any significant odors. Occasionally, wet conditions can cause an odor to develop, but these situations are usually short-lived and can be corrected with management. (These situations may occur more frequently with breeder and layer operations than with broiler farms because of the extended period of operation with birds in the house.)

It is almost impossible to operate a livestock farm, including a poultry farm, without having some odor resulting from normal production practices. Most of the odors associated with poultry production occur when the houses are cleaned out and the litter is spread as a fertilizer; thus, most odors associated with poultry production have little to do with the location of the houses. Clean-out schedules vary, but usually occur no more than a few times a year.

Litter application practices can reduce odors during spreading, but may not totally eliminate it. Odors produced as a result of poultry production are generally minimal and occasional, and are not sufficient reason to deprive landowners in agricultural areas the opportunity to participate in an important agricultural enterprise. It is important to realize that the long-term viability of a family farm may depend on the owner's ability to diversify income by adding poultry houses. Excessively restrictive zoning regulations can have serious economic consequences for a community and its farmers.

References

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- ⁽²⁾ *2007-2008 Broiler Production Systems in Georgia: Costs and Returns Analysis*. Dan L. Cunningham, Department of Poultry Science, University of Georgia Extension Bulletin B1240-3, July, 2007.
- ⁽³⁾ *A Comparison of Farm Incomes for Poultry and Non-Poultry Producing Counties in South Georgia*. Dan L. Cunningham, Department of Poultry Science, University of Georgia Extension Circular 897, March, 2006.
- ⁽⁴⁾ *Georgia's Nutrient Management Program for Poultry Producers*. Dan L. Cunningham and Casey W. Ritz, Department of Poultry Science, University of Georgia, www.poultry.uga.edu.
- ⁽⁵⁾ *Ammonia Concentrations Downwind of Broiler Houses*. B.D. Fairchild, M. Czarick, L.A. Harper, J.W. Worley, C.W. Ritz, B.D. Hale, and L.P. Naeher. Poultry Science 87:62 Suppl. 1.
- ⁽⁶⁾ *Facts for County Planners: Set-Backs for poultry houses*. Dan L. Cunningham, Department of Poultry Science, University of Georgia Extension Circular 931. November, 2008.

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