

## **Recommended Best Management Practices for Poultry Production Facilities**

High phosphorus levels, often associated with animal feeding operations, including poultry, are frequently linked to eutrophication of the watershed. Phosphorus is the limiting nutrient for algal growth in many Alabama freshwaters. Algal blooms may occur when phosphorus concentrations are far greater than normal. Algal respiration and decay can result in oxygen depletion, in turn producing fish kills, impacting mussels, and degrading water quality.

Without best management practices (BMPs), nutrient leaching and runoff (particularly phosphorus and ammonia) from poultry litter and soils into surface waters can occur. We recommend maintaining a natural, ungrazed, vegetated buffer of at least 100 feet between all facilities and natural waters to help eliminate or reduce detrimental impacts to surface waters. Preferably, buffers should consist of native perennial vegetation and include trees, shrubs, grasses, and other herbaceous types. We also recommend developing a water quality monitoring plan to assess algal development in any nearby streams, since the development of visible algal scums and/or mats indicates excessive nutrient inputs.

In addition to strictly complying with Alabama Department Environmental Management's requirements for AFOs as outlined in Chapter 335-6-7, and with NRCS technical standards (Nutrient Management) and specifications ([http://www.al.nrcs.usda.gov/e\\_fotg.html](http://www.al.nrcs.usda.gov/e_fotg.html)), the FWS also recommends the following BMPs to minimize impacts to aquatic systems:

1. Consider commercial marketing of litter as compost or fuel as a waste disposal alternative.
2. Design production and waste storage areas to accommodate all AFO litter and runoff from a 25-year, 24-hour rainfall event. Inspect production areas weekly to correct any runoff or erosion problems as soon as possible.
3. If runoff or discharges to natural waters are possible, monitor water quality for increases in filamentous algal growth above rates upstream of the facility. Increases in algal growth indicate potential problems with turbidity, bacteria, nitrogen, phosphorus, ammonia, and dissolved oxygen.
4. Use a non-fungus-infected fescue to reduce effects on herbivores like rabbits and deer, if you must use fescue.
5. Use phytase in poultry diets to increase productivity and eliminate supplemental feeding with phosphorus.
6. Intercept runoff and seepage from land application areas and direct it to storage sites, such as settling ponds, for proper future disposal in an acceptable manner.