

STORING AND APPLYING LITTER

To prevent nutrients in poultry litter from flowing into streams, it should be handled in a way where the possibility of stream contamination is eliminated.

The basic concept is that litter is covered to prevent rainfall from washing stored litter into streams.

Litter should **not be stored uncovered outside for even brief periods of time**. Rainfall on uncovered litter can cause rainwater to wash litter into streams and cause water pollution. Uncovered litter can be considered to be a point source of pollution and automatically require a NPDES permit.

There are two methods of storing litter from the time it is removed from the growing houses until it is applied.

The least expensive method is to store litter outside the growing house. Proper outside litter storage should have the following conditions to prevent possible environmental damage.

1. Construct a pad for litter storage. The pad site should be located where rain water can not flow through the area. Some type of hard surface such as packed stone, asphalt or concrete should be constructed for litter storage. One broiler house will generate about 375 cubic yards of litter per year. If this litter is stacked 6 feet high, it will occupy an area 40 feet square.

To prevent rain from washing the litter into a stream, it should be covered with plastic and anchored with old tires to prevent wind from blowing the plastic away.

1. Another method of storing litter is to construct a litter storage barn commonly called a "stack house". Plans for a stack house can be obtained from the National Resource Conservation Service (NRCS) office. Stack houses are expensive. They can cost more than \$10,000 to build. If a grower does not have a specific need for a stack house, it may be an unnecessary and costly expense.

SPREADING LITTER

Litter is an excellent fertilizer for use on crops and has an average fertilizer value of about \$35 per ton if all the nutrients can be utilized. Every attempt should be made to recover the value of this product. It should be viewed as a valuable resource rather than a waste product.

One house will produce about \$5000 of fertilizer per year which represents a value of 60 percent of the return of a broiler house during the pay out period and 25 percent of the return of a house after the debt is retired.

When litter is spread on crops, it should be spread as evenly as possible. Litter not spread properly will result in excessive plant growth in some areas and no fertilizer effect in other areas. If not properly spread, rainfall can wash it into streams. Litter should not be spread within 100 feet of a stream or pond unless there is a grass vegetation strip of at least 35 feet wide.

CALIBRATING LITTER SPREADERS

To insure that litter is spread properly, the litter spreaders should be calibrated to determine application rates at various settings. There are two methods:

1. The easiest method is to measure the distance a spreader truck travels to put out a load. Weigh the litter truck before and after spreading to determine the amount applied. Measure the distance the truck traveled to spread the load. Assume that the spreader truck delivers a 40 foot swath.

Example: A litter truck travels 1,000 feet to put out 5 tons of litter. A 40 foot swath 1000 feet long is 40,000 square feet, a little less than an acre. This represents an application rate of 5.44 tons per acre. A rule of thumb is that one ton of litter spread on a distance of 1,000 feet will be 1 ton per acre.

2. An alternative methods is to lay down tarps or sheets of plastic and drive the spreader truck across them. Collect the litter and weigh it. In this way, the amount of litter can be calculated.

APPLICATION RATES

Litter contains an average N, P and K of 3 percent, 2.5 percent and 2 percent. To meet the nitrogen requirements of most crops, about 4 tons per acre is required, however, to meet the phosphorus requirements most crops only 1 to 1.5 tons per acre is required.

One broiler house requires about 35 acres to meet the nitrogen requirements of a Nutrient Management Plan, however, to meet the requirements of a nutrient management plan based on phosphorus, 125-150 acres per house are required. At the present time nutrient management plans are based nitrogen. Changing to a phosphorus based plan can require 3-4 times more land.

DEVELOPING MARKETS FOR LITTER

Poultry producers who would like to increase profits from their litter may want to explore the possibility of marketing their excess litter to home and garden markets, landscapers, organic growers, etc. Several growers in the state are taking this route with good results. There is a large caution, however, don't let your expectations get ahead of your markets. Make small hatches (20-50 tons) and find markets for this small amount. Once the markets are found then a larger investment can be considered.

Over the years, people who tried this approach have found that making the product is the easy part. Marketing it is much more difficult.