

Dry Stack Building For Poultry Litter

Alabama Guide Sheet No. AL 313B



Definition

A pole-barn type structure used to temporarily store poultry litter in an environmentally safe manner.

General Information

A dry stack building for poultry litter storage should be considered when:

- storage is for more than 120 days
- split applications of litter may be needed
- the quality of litter must be maintained for cattle feed
- cleanout of the poultry houses must be done at a time when the litter cannot be land-applied

Storage for only short periods of time (less than 120 days) can be accomplished with Waste Field Storage (See Alabama Guide Sheet AL 749, Waste Field Storage). Dry stacks are often constructed in combination with a compost facility with both units under one roof (See Alabama Guide Sheet AL 317, Composting Poultry Mortality).

It is highly recommended that newly constructed dry stacks be located:

- as close to the poultry operation as practicable
- at a well-drained site
- at least 700 ft. from any public use area or non-owner dwelling
- at least 100 ft. from a private well
- at least 300 ft. from a public well
- at least 200 ft. from any natural water course
- at least 165 ft. from the property line

Dry stack facilities are engineered to withstand snow and wind loads normally associated with Alabama weather. Design features such as post size, post embedment depth, truss design, knee bracing, and structural connections are critical to the integrity of the building.

The size of the dry stack facility is dependent upon the operation. Generally, a dry stack provides enough storage for $\frac{1}{2}$ of the litter produced each year.

All structural wooden components below the roofline of the building and all wood in contact with litter should be pressure treated. Posts are specified to have the highest level of treatment and may require a special order by the supplier.

The floor of the dry stack can be compacted soil. However, experience has shown that a concrete floor provides the easiest management of the litter and is often preferred by most operations (NOTE: compost bins are required by state regulations to have a concrete floor).

Operation and Maintenance

Fires can develop in stacked poultry litter through spontaneous combustion. Special precautions should be taken to prevent this from happening (See Alabama Guide Sheet AL 313, Preventing Fires in Litter Storage Structures).

At least twice a year, when the facility is empty, it should be thoroughly inspected. Any wooden parts, hardware, or other replaceable parts that are damaged or show excessive wear or decay should be replaced.

All disturbed areas around the structure, including spoil or borrow areas, should be vegetated or covered with gravel to prevent erosion.

References

ADEM Administrative Code Chapter 335-6-17, as amended (AFO/CAFO rule).

NRCS AL Conservation Practice Standards

Code 313 - Waste Storage Facility

Code 317 - Composting Facility

Code 342 - Critical Area Planting

AL NRCS Guide Sheets

AL 749, Waste Field Storage

AL 313, Preventing Fires in Litter
Structures

AL 317, Composting Poultry Mortality

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