

effects on untreated wood and insulation by coating them in water. Dry wood will expand after absorbing moisture and then contract during hot summer temperatures. This expansion/contraction process can result in fasteners becoming loose, affecting the overall structural soundness. Furthermore, with only a limited number of attic access panels, the roof may only benefit with a few small areas of snow melt. Although opening the access panels may somewhat help, many experts believe that this practice is of little value.



Physical removal of the snow using roof rakes may be a better solution. Even removing snow from the lower portion of the roof provides weight relief and allows snow from the upper portion of the roof to slide down.

Of course, safety should be the first priority. If a house is nearing collapse, do not risk injury in an attempt to save it. Prevention by regular inspection and repair of the roof system is key to avoiding a house collapse. Additional information is referenced below.

Reference: D. Brothers, J. Campbell, J. Donald and G. Simpson. Avoiding Snow Disaster. Poultry Engineering, Economics and Management Newsletter. 2011. (70). Available at: www.poultryhouse.com



PoultryPractices

Oklahoma Cooperative Extension Service

A newsletter for poultry producers and poultry litter applicators...

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Editor's Column

New changes to the Poultry Waste Management Education Program will take effect in 2012. These modifications will significantly improve the program by restructuring the educational requirements. I encourage you to attend one of our many fall training classes or visit your local County Extension Office to learn more. An electronic version of our newsletter is available online at poultrywaste.okstate.edu where you can also find useful fact sheets, links, regulatory information and upcoming poultry waste management classes.

Josh Payne, Ph.D.
Area Animal Waste
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Senate Bill 92

Changes to Oklahoma's Poultry Waste Mgmt Education Program

Josh Payne

Senate Bill 92 was signed into effect April 13, 2011, and will affect the Oklahoma Poultry Waste Management Education Program by modifying the 1998 Oklahoma Registered Poultry Feeding Operations Act and the Poultry Waste Applicators Certification Act. The current Acts require that both poultry operators and poultry waste applicators attend:

- 9 hours of initial training within the first year of becoming registered or licensed and
- 3 hours of continuing education each year thereafter.

The new bill becomes effective January 1, 2012, and requires that poultry operators and poultry waste applicators attend:

- 9 hours of initial training within the first year of becoming registered or licensed and
- 2 hours of continuing education each year until receiving a total of 19 training hours.

Upon receiving the 19 required hours, the operator or applicator will graduate from the program but shall be required to attend:

- 2 hours of continuing education every 3 years.

Operators or applicators may attend more hours than are required; however, these hours shall not be carried forward.

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This modification will significantly improve the education program by separating the trainings into undergraduate and graduate level courses. Extension Educators and Specialists can focus their training efforts on teaching core curricula to undergraduate students while not repeating the same core curricula to graduate students. Graduate students will then be updated with new regulatory and nutrient management based curricula. The implementation of a graduate program will also help to divide audience size, providing a more conducive learning environment. Furthermore, modifying the continuing education to 2 hours will assist with maintaining audience attention.

Bovine Coccidiosis Not Linked to Poultry Litter or Wild Birds

Josh Payne

Coccidiosis is a parasitic disease that affects cattle, sheep, goats, swine, horses, poultry and pets. Coccidia are protozoan parasites of the genus *Eimeria* that inhabit the cells of the intestinal lining. There, the parasites multiply, and eggs (oocysts) are shed in the feces. Oocysts are extremely resistant to environmental stress and can be transmitted to other animals of the same species through contaminated feed, water, or soil. Clinical signs in cattle usually include diarrhea varying from watery manure to manure containing blood.

Sometimes cattle producers are concerned that coccidiosis from infected commercial poultry or wild birds, such as geese, could potentially be transmitted to their cattle. Producers that land-apply poultry litter may be even more concerned. The fact of the matter is that coccidia are very host specific and the species of *Eimeria* that affects cattle is different from the species of *Eimeria* that affects poultry. The same can be said for other animals. In addition, few oocysts are found after birds are removed from a farm because poultry litter is a poor environment for oocyst survival. Although oocysts may survive for many weeks in soil, their survival in litter is limited to just a few days because of the heat and ammonia released and the action of molds and bacteria.

The bottom line is, don't be concerned about bovine coccidiosis occurring from land-applied poultry litter or from wild migratory waterfowl. Transmission in cattle generally occurs in overcrowded or congregated areas through the bovine to bovine (fecal-oral) route.

Purchasing and Stockpiling Poultry Litter during Fall for Spring Application

Josh Payne

Many producers apply poultry litter during the spring months as an affordable fertilizer source for summertime crop and forage production. This often coincides with higher demand and higher prices for poultry litter. Higher demand may also equate to limited availability of litter re-

quiring producers to be flexible with application timing. One alternative is to purchase litter during the fall and stockpile under covered storage until spring for land application. The advantages to this strategy may include: 1) lower demand 2) lower prices 3) increased availability and 4) freedom to apply based on a producer's individual schedule.

It is important to remember that stored litter must remain under cover (tarp, storage barn, etc.) according to state regulations. Keeping litter dry reduces N losses from ammonia volatilization and avoids potential runoff concerns. Research has reported total N losses of approximately 12% from stockpiled litter; however, much of the value attained from litter originates from the phosphorus and potassium levels, which are not lost during proper stockpiling.



Preventing Snow Collapsed Poultry Houses

Josh Payne

A recent newsletter article from Auburn University, titled “Avoiding Snow Disaster” outlined some tips for preventing poultry house damage or even collapse from snow accumulation. In all likelihood, this thought weighed heavily on the minds of poultry producers in Oklahoma and Arkansas following the 2011, record setting winter snowfall.

First and foremost, poultry producers should know the snow load capacity that the house was designed to meet. Below is a table illustrating various snow loads that a typical poultry house can withstand. Note the difference between light/dry snow and heavy wet snow.

Roof Design Snow Load	Light/Dry Snow	Heavy/Wet Snow	Ice	Water
5 lbs/sq ft	19.2 inches	2.9 inches	1.0 inch	1.0 inch
10 lbs/sq ft	38.4 inches	5.8 inches	2.1 inches	1.9 inches

Secondly, regular inspection and repairs should be made to meet that standard. This includes inspection of the attic including trusses, truss bracing, purlins, and metal that comprise the roof structure.

If dealing with snowfall accumulation on top of a house, some growers may consider opening attic access panels allowing warm air to enter the attic and possibly melt the snow on the roof. However, condensation concerns, which occur when warm moist air enters the attic and comes into contact with cold surfaces, should be considered. This practice can have negative