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Farm Update

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AGRICULTURE & NATURAL RESOURCES
EDUCATION

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Economic Value of Applying Broiler Litter

High costs and low prices have caused everyone to reevaluate plans for the 2025 crop. Broiler litter return on investment is a decision I get a lot of questions about. Extension Farm Management Specialist Dr. Jordan Shockley wrote the following article on the value of fall and spring-applied litter compared to commercial fertilizer.

Litter applied in the fall to fallow cropland will suffer from ammonium volatilization and leaching resulting in little to no nitrogen available to the crop come spring. This results in an economic value less than if applied in the spring. To evaluate the economic value of broiler litter applied in the fall, first assume that soil test recommendations indicate the need for phosphorus and potassium. Also, assume that “as received” broiler litter has an average for Kentucky nutrient content of 50 lbs of nitrogen, 56 lbs of phosphorus, and 47 lbs of potassium. Broiler litter also contains calcium carbonate, therefore also has a lime value. With current fertilizer prices of \$497/ton for urea (\$0.54/lb N), \$739/ton for DAP (\$0.59/lb P₂O₅), \$446/ton for potash (\$0.37/lb K₂O), and \$13.50/ton for lime (at the quarry), the expected value of broiler litter applied to fallow cropland in the fall is \$46/ton. This value should cover the price paid for the litter, transport, and application to compete with commercial fertilizer when applied in the fall.

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The value of broiler litter increases to \$54/ton if it is spread in the fall to cropland that has a cover crop planted. Both fall broiler litter prices are around the same value as in Fall of 2023.

If availability of litter in the spring is a concern, stockpiling litter purchased in the fall for application the following spring is the best option to maintain the nitrogen value. With the correct storage techniques and a properly stacked litter pile, producers can expect minimum nutrient loss for spring application. If the same commercial fertilizer prices hold, the average broiler litter in Kentucky would have a value of \$62/ton if properly stored and applied in the spring.

Since the value of broiler litter is dynamic and always changing, decision tools have been developed so producers can enter soil test data, nutrient content of measured litter, commercial fertilizer prices, and management practices of broiler litter applied to determine the value. Tools for applying litter to both grain crops and land in hay/pasture/silage are available and can be found on the Agricultural Economics webpage for budgets and decision tools.

Winter Annuals and Winter Feeding Field Day

The beef cattle and forage extension specialists at the University of Kentucky Research and Education Center are partnering to host a winter annuals and winter feeding field day at the Princeton station on Saturday, December 14, from 10 a.m. to 12 noon. This workshop will cover many popular cattle feeding topics in two hours.

Winter hay feeding strategies will be covered including bale grazing. Bale grazing is the system of placing bales throughout a pasture, allowing limited access to a few bales at a time grazing away from the water and mineral source. This method reduces time on a tractor in adverse weather and field conditions and more evenly distributes manure through the field. UK

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always advocates stockpiling a pasture for winter grazing. There will be a demonstration field at Princeton that has been prepared to strip graze this winter. There have been improvements in hay feeders to preserve quality and reduce loss. They will have some new ideas regarding hay feeder placement to see.

Winter nutrition is important. Dr. Katie VanValin will speak on simplifying winter nutrition while still meeting the stage requirements for the animals. They will demonstrate successful frost seeding techniques and have a wide variety of winter annual species growing to discuss how to best utilize those for grazing. If you would like to attend, please call my office at 270-685-8480. I plan to take our office van, call early to reserve a seat.

Daviess County Agricultural Development Council

The Daviess County Agricultural Development Council will meet at 6:00 p.m. December 12 at the Daviess County Extension Office to review recently submitted funding requests. If you have a project idea representing the purpose of the KADF, contact my office or visit

<https://www.kyagr.com/agpolicy/>.

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