



Agricultural
Research
Service

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Utilization of Broiler Litter as an Alternative Nitrogen Source

Why Does it matter?



Prices of commercial nitrogen and broiler litter change with season, and availability. Selection of source of nitrogen to meet plant requirements can lower cost of producing row crops and forages. Georgia is the number one producing broiler state in the U.S. in terms of broiler litter. With broiler litter availability (1.5 million tons of litter/yr) farmers have another source of nitrogen to consider for lowering production cost.

What was done?

Broiler litter was applied to meet nitrogen recommendations for bermudagrass. Prescription fertilizer rates were used for site-specific nutrient applications to reduce over applications of nutrients. Broiler litter was applied during growing periods to reduce loss of nutrients and environmental concerns. Land with a low soil index of phosphate (P index) and potash was targeted for broiler litter applications.



What was found?

Broiler litter is the lowest cost source of nitrogen in most areas of Georgia. Using broiler litter in 2008, nitrogen cost was cut by two-thirds. With broiler litter supplying 64 pounds of nitrogen per ton, the savings of using broiler litter nitrogen vs. commercial nitrogen was \$63.17/acre. One limitation is the seasonal availability of broiler litter can make timely applications difficult. Another advantage of broiler litter is that it provides nitrogen, phosphorus, and potassium (3-2-2). The extra amendments of phosphate and potash make it more advantageous when phosphate and potash are recommended. Broiler litter raised the level of nitrogen and phosphate to the recommended level. It is critical to not over apply and exceed environmentally critical phosphate levels.

Research Team and Contact information

Cooperating Personnel:

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