

Baling Cornstalks Makes It Difficult For Soil, Cattle To Get Nutrients



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LEXINGTON, KY.

As spring planting gets under way, farmers who baled corn stover for winter feed will have to replace soil nutrients lost during residue removal, said Chad Lee, University of Kentucky Cooperative Extension grains specialist.

With last year's inclement weather, many livestock producers across the United States were faced with a shortage of forages. Some decided to bale or purchase bales of corn stover to extend their feed supply through the winter.

When corn stover was removed from the fields, potassium and phosphorus also were removed. With the cost of fertilizer on the rise, replacing those nutrients could be an additional expense for some farmers this spring, if they did not replace them last fall.

"If a farmer pulled off corn stover, and this is a practice they don't normally do, they need to anticipate applying more potassium and phosphorus," Lee said. "One ton of corn stover will remove about \$22 of potassium and phosphorus. We expect most baling equipment to have removed about 40 percent of the stover in the

field. So, if a corn crop yielded about 150 bushels per acre in grain, we would expect about 1.68 tons of corn stover removed per acre, or about \$37 in phosphorus and potassium."

Lee said before applying any nutrients, producers should have their soil tested for nutrient deficiencies. Producers who have had their soil tested in the past couple years need to account for and replace nutrients removed by the stover.

"Most of the time when we give our fertilizer recommendations, we are assuming the farmer has left the residue on the soil," Lee said.

While last winter may have been some producers' first experience with feeding corn stover to cattle, it is not an uncommon practice for cattle to annually graze crop residue. There are many nutritious parts to corn stover including the ears, dropped grains, leaves, shuck and the top 25 to 30 percent of the stalk. The bottom 75 percent of the stalk is not easily digested, said John Johns, UK extension professor for beef nutrition and management. Feeding livestock baled cornstalks makes it harder for them to get the nutrition they need, because most of the bales are comprised of the 75 percent of the stalk that is not digestible.

"If you have to feed your cattle baled cornstalks, it is better to unroll it, and let the cow get what she wants," Johns said.

Instead of baling cornstalks, Johns recommends that producers allow cattle to selectively graze crop residue on the field.

He said cattle will consume a greater amount of dry matter when grazing cornstalks compared to when the stalks are baled and fed to the cows. An additional advantage is much of the residue material is not removed from the soil surface and much of the potassium and phosphorus the cow consumes in stalk residue will return to the soil in the manure she leaves in the field while grazing. △