



Feeding Drought-Damaged Cotton and Peanut Crops to Beef Cattle

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Beef cattle producers can use abandoned cotton and peanut crops several ways. By using these abandoned crops, cattlemen can reduce feed costs and/or extend the grazing period and perhaps allow pastures to regenerate if adequate rainfall is received.

The key to effectively using these crops is to match feed quality with animal nutritional requirements. Standing cotton will be less nutritious than unharvested peanuts. So dry beef cows can use standing cotton, lactating beef cows can make use of baled peanut vines, and stockers could graze or be preconditioned on unharvested peanut vines.

Abandoned Cotton. Research conducted at the Southwest Georgia Experiment Station in Plains, Ga., indicates that 1 acre of standing cotton can provide about 35-45 percent grazing for one mature dry cow. Therefore, if a producer has a 40-acre field of abandoned cotton, this could provide about 1 to 1.5 months of grazing for 40 dry beef cows. Refer to Georgia Cooperative Extension Bulletin 1311, *Using Cotton Byproducts in Beef Cattle Diets*, for more information on feeding cotton crop residues to beef cattle.

Abandoned Peanuts. Grazing unharvested peanuts or harvesting the crop for hay can provide nutritional value similar to alfalfa hay. Cattlemen who are weaning calves may consider grazing unharvested peanut vines. As a rule, peanut vine yields are about 1.5 times the actual peanut yield (1.2 for GA Green and 1.7 for Georgia-02C or C-99R). For instance, an estimated peanut yield of 500 pounds would provide about 750 pounds of vines per acre.

When grazing peanut vines, an ideal supplement would be soybean hulls fed at 1 percent of body weight per day. Stocking rate should not exceed 500 pounds of calves per acre. At a stocking rate of one 500-pound steer per acre receiving 1 percent body weight of soybean hulls per day, ADG of 2.5 pounds per day is possible for about 30 days (about 75 pounds per calf).

Peanut vines can be harvested for hay and fed to lactating cows or growing animals. Since the vines should be very similar to alfalfa hay, the value of the hay should be about \$200 per ton. Cut peanut vines for hay with a mower-conditioner. At \$3 per gallon for diesel, cash costs to mow-condition and bale will be around \$34 per acre. Using the vine estimate above of 750 pounds of vine per acre, this amounts to \$90 per ton cost to put up hay. However, with a value of \$200 per ton, this is still an economical decision. Cattlemen should closely consider the economics of this decision and compare the economics of adding weight and value to calves by grazing versus \$34 per acre for hay cost plus transportation from the field and storage.

In some instances, the peanuts may be dug and the peanut and vine baled together. Peanuts are very high in energy due to the high fat content (48 percent), and peanuts are also high in protein (28 percent). If the peanuts yield 500 pounds per acre, the resulting peanut plus vine hay would be about 15 to 18 percent crude protein and 65 to 68 percent TDN. Either dry or lactating cows can use this hay. Dry cows require about 8 percent protein and 52 to 55 percent TDN. Lactating cows require approximately 60 percent TDN and 11.5 percent protein. Because of the high levels of fat in the peanuts, the hay must be limited to avoid depressed fiber digestion and potential scouring. If the peanuts yield 500-pounds per acre, then limit intake to 1 percent of body weight per day. In addition, lactating cows need about 1.5 percent of body weight per day of grass hay and 1 percent of body weight for a dry pregnant cow. Additional hay should be at least 10 percent crude protein and 58 percent TDN. The only way to know if cows are receiving adequate amounts of protein and energy is to have the hay analyzed for nutrient content. Contact the local Extension agent for help with this analysis.

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