

Adding Value to Sprouted Grains through Feeding to Beef Cattle

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Wet weather during August and September created temperature and weather conditions that favor germination and sprouting of small grains prior to harvest. Sprouted grains are subjected to severe price discounts because sprouted grains are considered as dockage. Sprouted grains can retain most of the feeding value of non-sprouted grains when fed to livestock.

Previous research conducted at NDSU (Circular AS-647 December 1975) compared the feeding value of 20 percent sprouted durum (58.6 lbs./bu.), 40 percent sprouted durum (56.7 lbs./bu.), 20 percent sprouted hard red spring wheat (57.4 lbs./bu.), and 40 percent sprouted hard red spring wheat (56.0 lbs./bu.). Average daily gain and feed efficiency were equal or superior to the barley based control diet.

Weather conditions that lead to sprouting are also conducive for mold growth. Moldy feeds may lead to poor overall health, abortion or other symptoms due to the toxins produced by various molds. Beef cattle appear to be somewhat able to ingest certain molds without deleterious side effects. Questionable feeds can be analyzed for mold toxins by a diagnostic laboratory.

For feeding backgrounded calves, sprouted grains could be used at levels similar to the non-sprouted grains. For example, a simple diet to attain 2 pounds per day gain could contain 50 percent hay and 50 percent grain. A 600 pound calf might consume 18 pounds of feed daily where 9 pounds would be from grain. To adapt calves to sprouted grains, the grain mix could be 50 percent normal grain and 50 percent sprouted grain. Once the calves are adapted to the diet (3-14 days), sprouted grains could be included at a higher percent of the grain mix.

For supplementing cows, part of the grain mix could be substituted with sprouted grain. Although 50 percent sprouted grain in the mix is a reasonable starting point, up to all of the grain mix could be sprouted depending on feed quality. Moldy feed should be avoided during gestation since mycotic abortion can occur.

Sprouted grains may also contain a high percent of weed seeds and chaff. Consequently, a feed analysis should be conducted to determine the actual value of the harvested grain. Through feeding sprouted grains to beef cattle, most of the value of the grain can be retained and priced accordingly to other livestock feeds.