Feeding Distillers Grains on Pasture

Recent studies at the University of Nebraska Gudmundsen Sandhills Laboratory, near Whitman, Nebraska has measured the effects of two delivery methods when feeding wet distiller grains with solubles (WDGS) and dry distiller grains with solubles (DDGS) in a pasture on the ground, versus feeding them in commercial feed bunks. Feeding on the ground results in higher waste levels than feeding in a bunk, but the waste may be offset by a reduction in capital expenses associated with bunk feeding.

Experiment One was 63: March-born steers weighing 443 pounds grazed native, upland, Sandhills winter range, and were fed 2.25 pounds of dry matter equivalent of WDGS per day, delivered three times per week. Steers were assigned to one of two feeding treatments: either fed in a bunk or fed on the ground. Experiment Two was114: March-born steers weighing 615 pounds grazed sub-irrigated meadow, and were fed 2.0 pounds of dry matter equivalent of DDGS per day, delivered three times per week. Half were fed in a bunk and the other half were fed on the ground. Further information about the experiments is available in the Nebraska Beef Reports (2010 Nebraska Beef Report pg. 18; 2012 Nebraska Beef Report pg. 51-52).

Both groups of steers fed in a bunk had a higher average daily gain (ADG) than steers fed on the ground. In Experiment 1 where WDGS was fed, groups gained 0.63 vs. 0.44 pounds per day, while in Experiment 2 where DDGS was fed, groups had an ADG of 1.18 vs. 0.92. On average, those animals fed in the bunk were 11.78 and 20 pounds heavier for the WDGS and DDGS, respectively, than those fed on the ground. Using National Research Council (NRC) published information, it was estimated the WDGS steers fed on the ground consumed between 0.31 to 0.45 pounds of WDGS dry matter per day less than those fed in the bunk. This indicates a 13 to 20 percent waste in feed. Using the same methodology, it was estimated DDGS steers fed on the ground had a loss of 40 to 45 percent of feed compared to those fed in bunks.

The real value of the lost distillers is not feed loss, but the loss of production from the cattle. Steers fed WDGS had a $17.20 and a $24.50 per head advantage for bunk feeding for the 2011 and 2012 market years. Steers fed DDGS had a $26.40 and a $33.00 per head advantage for bunk feeding for the same market years. Assuming a single bunk cost $973.65, including delivery and set-up, with the capacity to accommodate 40 of the heavy steers or 56 of the light weight steers, it is paid off in a single season, bunk cost per head is $24.34 for the larger steers and $17.39 per head for the smaller steers. Bunk costs were recovered during the single season for all but the 2011 light weight steers.

For brood cows the difference is difficult to measure since it comes in the form of both cost savings, such as preventing poor reproduction, improved cow health and longevity or increased production such as cow cull value and calf weaning weight. It is possible a bunk would be more costly than ground feeding if cows were supplemented for short periods and the cost of the bunks or other costs such as moving them increased. Wherever and however they are fed, distiller grains will attract cattle and manure to the feeding area. This means grazing distribution and phosphorus distribution from both manure and waste feed. Having a mobile feeding site is desirable for current and future management of the pasture.

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