WRINKLE
A NEW UNDERSTANDING IN NUTRITION
DakotaGold
Issue 20180016

How Can Feeding DDGS to Pregnant Cows Improve Calf Performance?

RESEARCH SUMMARY

Most producers recognize that providing adequate nutrients to mature beef cows by feeding DDGS promotes performance and health of the animals. However, research from North Dakota State University now shows benefits for the calf when the cow receives DDGS during the late gestation period.

BACKGROUND

In many spring-calving beef cow herds, producers have limited availability of quality forages prior to calving. As a result, the cows in late gestation may not receive adequate nutrients to support their growth and the development of the fetus. In order to investigate how this feeding scenario affects calf growth and development, researchers at North Dakota State University supplemented pregnant cows with DDGS from day 201 to 270 of gestation.

The control group of cows received a corn stover and corn silage diet. The DDGS fed cows received the same corn stover and corn silage diet, but they also received approximately 4.5 pounds per head per day of DDGS.

RESULTS

Researchers looked at several responses in both the calves and cows and noted differences between treatments. This included better colostrum quality from the cows supplemented with DDGS. Colostrum, as we know, typically contains a high concentration of immunoglobulins which help with calf health. In this research, cows fed the DDGS had greater amounts of colostrum and colostrum with high concentrations of immunoglobulins.

BENEFITS TO THE COW

- During gestation, cows that received DDGS maintained body condition and gained more weight compared with cows that did not receive DDGS.
- Cows supplemented with DDGS ate more forage compared with cows that did not receive DDGS.

BENEFITS TO THE CALF

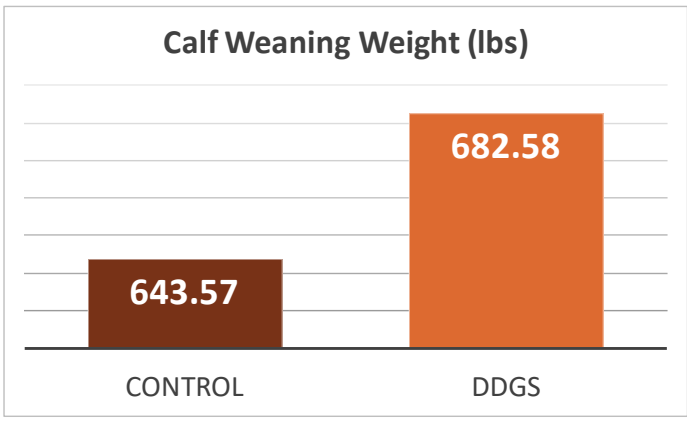
- Calves from cows that received DDGS during gestation weighed 7.5 pounds more at birth than calves from cows that did not receive DDGS.
- Calves from DDGS supplemented cows had a 39 pound advantage at weaning compared with calves from cows that did not receive DDGS.

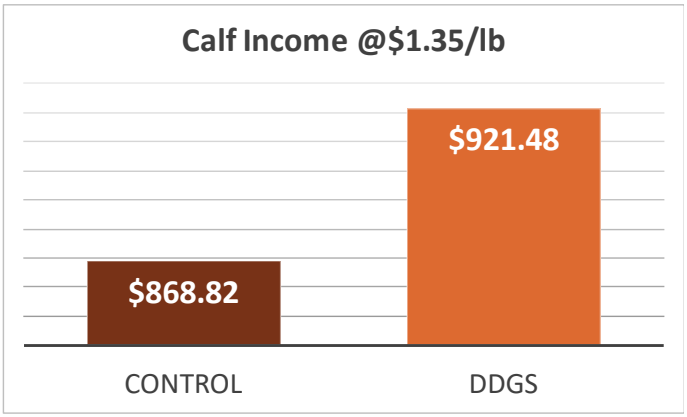
Secondly, cows supplemented with DDGS produced over seven pounds more milk per day than cows fed the control diet.

*These results are not a guarantee of nutritional value, as laboratory results are influenced by factors beyond the control of POET Nutrition.

RESULTS (CONT.)

Prices of DDGS and feeder cattle always fluctuate. However, if we assume a DDGS price of $150 per ton and a feeder calf price of $1.35 per pound, then supplementing the cow during the last part of pregnancy results in almost $30 more profit per calf.





Kennedy, et. al., 2019.

The researchers concluded that feeding DDGS to the late gestation cows provides clear benefits to the calf. Limiting nutrition during this critical phase of calf development results in poorer calf performance during the early stages of life. Furthermore, most producers recognize that better health immediately after weaning results in better performance throughout weaning.

Nutritionists sometimes view the time period during late gestation as an opportunity to reduce feed costs and feed poorer quality forages. Feeding DDGS during late gestation can still provide an opportunity to reduce feed costs; however, it also provides an opportunity to supplement critical nutrients needed by the cow for calf development.

This research gives another example of how feeding Dakota Gold can provide value for beef producers. As an additional option for beef producers, POET Nutrition proudly offers Dakota Gold in a cube form called ProPellets. ProPellets provides the same quality protein and energy as Dakota Gold in a convenient cube form which minimizes waste and improves handling for range-feeding applications."

If you would like additional information on this study or more details on the nutritional profile of Dakota Gold or ProPellets, please contact POET Nutrition or visit www.dakotagold.com.

Sources: Kennedy, V. C., J. J. Gaspers, B. R. Mordhorst, G. L. Stokka, K. C. Swanson, M. L. Bauer, and K. A. Vonnahme. 2019. Late gestation supplementation of corn dried distiller's grains plus solubles to beef cows fed a low-quality forage: III. Effects on mammary gland blood flow, colostrum and milk production, and calf body weights. J. Anim. Sci. 97:3337-3347.

Kennedy, V. C., M. L. Bauer, K. C. Swanson, and K. A. Vonnahme. 2016. Supplementation of corn dried distillers grains plus solubles to gestating beef cows fed low-quality forage: I. Altered intake behavior, body condition, and reproduction. Journal of Animal Science. 94:240-247.