

Palatability of Pelleted DDGS

Producers and nutritionists recognize that animals find dried distillers grains with solubles (DDGS) palatable. However, very little research has looked at how further processing the DDGS into pellets affects palatability. This study demonstrates that cattle find pelleted DDGS extremely palatable and highlights the potential applications for pellets in robotic milkers, receiving diets, and calf starters or growers.

Study Design

To quantify the palatability of pelleted DDGS, researchers at the University of Nebraska designed a study using 8 lactating Jersey cows. Prior to feeding the total mixed ration, researchers placed approximately 1 pound of 4 different ingredients in separate containers in front of each cow (Figure 1). The 4 ingredients included: corn, DDGS, a novel high-protein distillers ingredient, and a pelleted DDGS (ProPellet).

Researchers recorded which ingredient cows selected first, second, third, or fourth. After a few days, researchers then removed the most preferred ingredient for each cow. This continued for a total of 3 feeding segments and allowed for a sequential ranking of palatability for each cow from most preferred to least preferred.

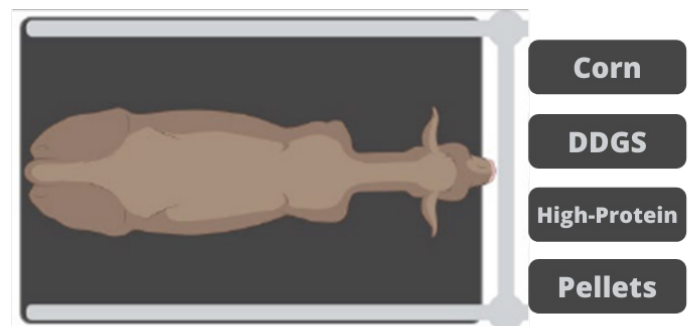
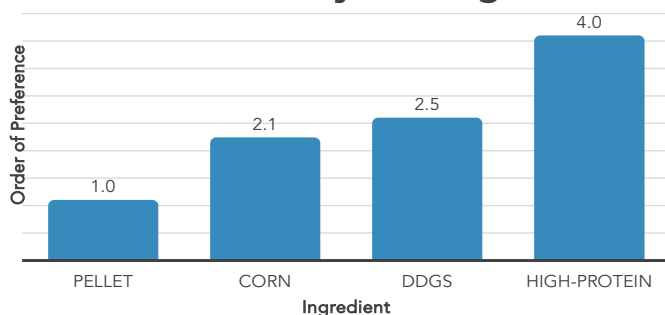


Figure 1. Buse, et al., 2020 - ASDA Annual Meeting

Palatability Ranking



Results

Cows found all ingredients palatable, but all 8 cows preferred the pelleted DDGS over the other ingredients. The pelleted DDGS had an average ranking of 1.0, corn ranked 2.1, DDGS 2.5, and high protein distillers averaged 4.0.

Ranking represents the order of preference. For example, the ingredient that cows found most palatable got a ranking of 1, and the least palatable, a ranking of 4.

Implications

Several factors determine the dairy cow's preference for ingredients including odor, taste, and particle size. In this study, it appears the combination of these factors for the pelleted DDGS made it the overwhelmingly favored ingredient.

These results suggest that pelleted DDGS could have significant value for applications where producers want to promote intake including pre-conditioning for just-weaned calves, dairy pellets used in robotic milking systems, starter feeds in feedlots, and starter or grower pellets for replacement dairy heifers. Greater intake results in greater nutrient supply and the potential to support better growth, production, and health for increased performance and revenue.

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