

# **Distillers Grain**

DGs are a great feed when used correctly, but they can cause problems when used in excess. I would not feed my cows in a manner like you describe for your neighbor.

Our recommendation is to use wet or dry distillers grains as a protein source to meet animal requirements. For feedlot cattle on a typical corn, corn silage based ration that would be about 25% of the ration on a dry matter basis. We could push that a little, up to about 30%, but above 30% we can have some potential problems with excess sulfur, excess protein, and excess fat in the diet. Excess sulfur can cause polio (brainers). For the "small" producer, if you took delivery of a wet load, it will last for maybe 1-3 weeks before your next load. If the load was high in sulfur, that is a lot of individual meals/animal. The big feedlots use a load in a day or less and one "hot" load is only one or two meals/animal. Excess protein and fat can decrease marbling scores and therefore percent of cattle grading choice.

On cows, our concern is excess sulfur, protein and fat. Sulfur ties up copper which is important for reproduction. Excess protein can increase birth weights when fed to late gestation cows and we are convinced that it will lower fertility and increase early embryo mortality when fed to early lactation cows. Two producer stories: 1) producer was advised by a veterinarian to full feed distillers grains and feed 5 lb of hay/cow/day. Cows looked great, but he sold 1/3 of them because they failed to breed - problem = way too much protein and sulfur. 2) a fellow beef researcher in IL has preliminary data that suggests that calf birth weights are significantly increased when fed high levels of DGs during late gestation.

The amount of DGs in cow diets is dependent on forage quality. Low quality forages need more protein (i.e. more DGs can be used) to balance the diet than when moderate or good quality hay is used. We do not recommend using DGs as a primary energy resource. It does bring energy to the table when used as a protein source, but should not for its energy value after meeting the protein requirement. Having said that, can we go a little above the protein requirement, probably, but we do not recommend going way above.

Any time we feed DGs, the phosphorus (P) level of the ration will go up. We need to make sure the calcium (Ca) level is always above the P level in the diet. That means a high Ca mineral must be added. It can be as simple as adding ground limestone (calcium carbonate) or a commercial mineral like gluten-aid which contains high calcium. Most feed companies have a mineral to be fed with DGs and/or corn gluten. In the feedlot, a Ca:P imbalance causes urinary calculi (water belly) and it can have a negative effect on reproduction in cows.

Hope this helps. If you have any questions, let me know and we'll try to answer them.

Ron

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