WRINKLE
A NEW UNDERSTANDING IN NUTRITION
DakotaGold
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DDGS Effects on Swine Production

RESEARCH SUMMARY

Research on DDGS inclusion in swine diets revealed including DDGS did not affect feed efficiency. In fact, there is evidence that suggests we need to have accurate energy estimates for DDGS in order to optimize swine performance. Furthermore, the majority of research has focused on DDGS inclusions of 25 – 30%. The limited research with inclusions greater than 30% would indicate that we need to change formulation strategies for amino acids.

BACKGROUND

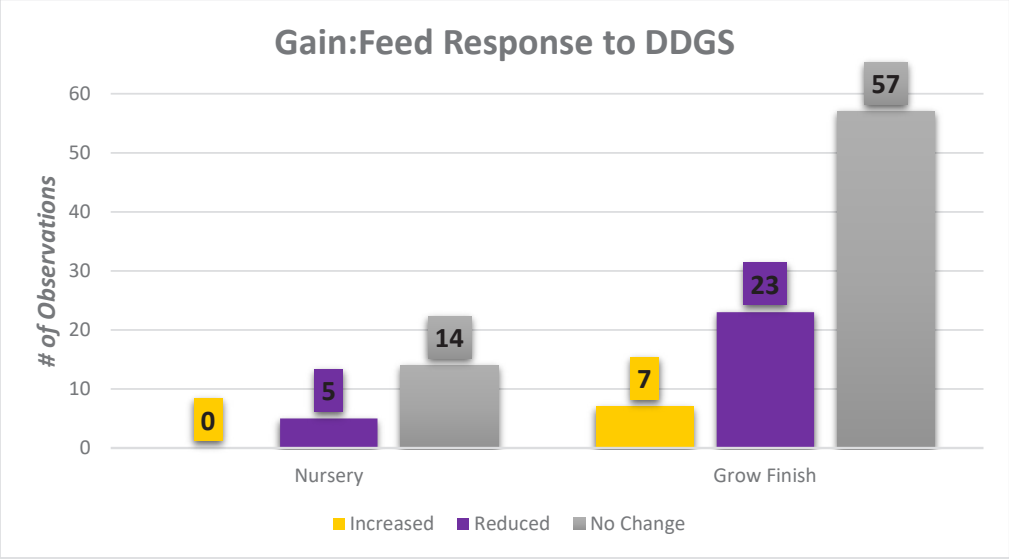
The topic of DDGS continues to create a significant amount of interest for swine researchers. Since 2010, the swine industry has seen a constant flow of research articles reporting on several different areas of DDGS nutrition. To summarize these results, Feedstuffs magazine recently published a series of articles by Dr. Jerry Shurson that provided additional insight into some of the findings of this research.

Dr. Shurson's team collected 26 peer-reviewed references and one thesis published between 2010 and 2017. All articles investigated the effects of DDGS on either nursery or growing/finishing pigs. Data collected from each of the articles included performance metrics such as average daily gain, feed intake, and feed efficiency. Furthermore, researchers collected data on formulation so that they could evaluate responses to factors such as DDGS inclusion.

RESULTS

With 87 observations, the number of studies feeding DDGS to grower/finisher pigs far exceeded those studies feeding DDGS to nursery pigs (19 observations). However, DDGS affected performance similarly between both stages of production. Figure 1 (below) shows the number of studies which reported either an increase, reduction, or no change in feed efficiency when fed DDGS.

Figure 1. Feed efficiency response in nursery or grow/finish pigs to DDGS

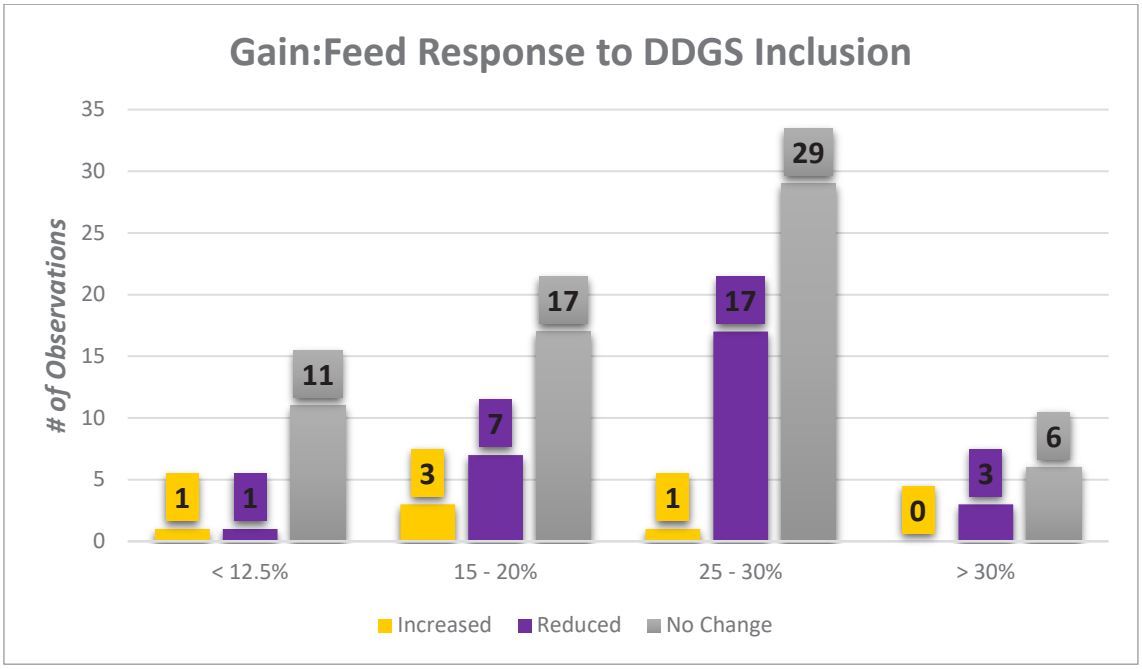


*These results are not a guarantee of nutritional value, as laboratory results are influenced by factors beyond the control of POET Nutrition.

RESULTS (CONT.)

Dr. Shurson also summarized the effects of DDGS inclusion on feed efficiency (Figure 2 below). Almost half (48.95%) of the studies included DDGS between 25 and 30% of the diet. Interestingly, only 9.38% investigated feed DDGS at inclusions of greater than 30%.

Figure 2. Feed efficiency response to DDGS inclusion.



CONCLUSIONS

The majority of studies reported that including DDGS in swine diets did not affect feed efficiency compared with the control diets. In a small number of studies, researchers reported reduced performance while a lesser number reported an improvement. This leads us to ask why we see these types of differences.

In the Feedstuffs article, Dr. Shurson suggested that factors such as incorrect energy estimates and increased fiber concentrations could explain some of the poorer performance associated with DDGS. Especially when formulating with greater amounts of DDGS, nutritionists need accurate energy estimates to optimize performance. In response, industry leaders such as POET continue to work at developing more accurate predictive energy equations.

Finally, although not addressed in the Feedstuffs article, the inclusion of DDGS most likely reduced feed costs. In order to evaluate the value of DDGS, producers and nutritionists need to consider this important component. If you have additional questions on this topic, please contact us as www.dakotagold.com.

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