

Get To Know Your Feeds

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Today the beef industry has access to many sources of coproducts. These feedstuffs have found their way into beef diets for a variety of reasons. The nutrient profile and cost are often the driving factors for why these various feedstuffs work into the ration. Regional availability also plays a major role as it impacts prices paid for these feedstuffs. With current fuel costs increasing transportation expenses, this has a larger impact today than in the past. As a beef producer that may be feeding coproduct feeds, it is worth your time to learn about the nutrient quality of various feedstuffs to assure you are still receiving quality feed.

The coproduct feedstuff prices move closely with the price of grains. This price movement can result in slight to significant formulation changes of supplements and feeds as nutritionists attempt to balance the diet or supplement for nutrient content and minimize costs. Due to the potential swapping of feeds in and out, many purchased dry feeds and supplements may not list actual ingredients, but rather use collective terms. Collective terms include things like roughage products, processed grain coproducts, and plant protein products.

Though most feed companies or feed sales representatives won't tell you what the exact mixture is for a given feed, you should be able to find out what is in the feed for main ingredients. Recently, peanut products have made their way into central Kentucky. These feedstuffs were less costly at the time and obtained in an effort to keep feed costs down for beef producers.

What do you know about peanut products? The primary peanut coproducts being used this year are peanut skins and hulls. Dr. Gary Hill in 2002 reviewed peanut byproducts and their utilization for beef cattle diets. Peanut skins contain a high amount of fat, near 20-25 percent, which can limit their inclusion rate in forage-based rations. They are also contain moderate amounts of crude protein at approximately 17 percent and lower levels of acid detergent fiber (<25%). These unique factors make them attractive as a feedstuff.

Peanut skins, however, also contains a significant amount of tannins. As the level of peanut skins increased to 20 percent of the diet on a dry matter basis, diet dry matter and protein di-

gestibility were found to be reduced. This is a result of the high tannin content binding up degradable protein leading to a rumen protein deficiency for finishing-type diets. Peanut skins were fed as a replacement to soybean hulls in diets that contained 10.5 percent or 15.5 percent crude protein. On the low protein diet, replacing soyhulls with peanut skins resulted in a linear reduction in daily gains. However, on the high protein diet, daily gains increased linearly as peanut skins replaced soyhulls up to 15 percent. Peanut skins can be used as component in supplements offered to cattle grazing forages high in crude protein (>16%). Since fescue crude protein content declines rapidly as the plant matures and easily falls below this level as the grass begins flowering and developing seed, this is not an ideal feed for this situation. Because of concerns of limited degradable protein for much of the tall fescue hay fed to cows during the winter, peanut skins would not be an ideal supplement without additional crude protein offered along with it.

Peanut hulls differ dramatically in nutrient content to that of skins. They are low in protein and fat while being high in fiber. These properties make this feedstuff a roughage source. With in-vitro dry matter digestibility in the 24 percent range contrasted to that of 55 percent for tall fescue, it is not a great source of digestible fiber and will not yield much energy. For those needing a roughage product for self-fed supplements that doesn't bridge up in a self-feeder, it works well at low-moderate rates. However, as the inclusion rate in the diet increases, the energy density is reduced and performance will decline. Peanut hulls should not be finely ground and fed to beef cattle as forage replacement as the effective fiber content is reduced by this processing which may result in greater risk to ruminal acidosis.

As you begin looking for less expensive feeds, be sure to think about how these feeds can be produced for less money. Read the feed tag ingredients and if there is not adequate information listed ask the feed salesman specifically what is in the feed. Learning more about various coproducts will allow you to have better performance when feeding these feedstuffs. For additional assistance contact your county extension agent or nutritionist. Δ

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