

Supplemental feedstuff selection

Identifying the most economical supplemental feedstuff options

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As we start to feel that familiar bite of the late fall air, and many of our forages go dormant for the year, it shouldn't come as a shock that the economic burden of winter-time feed costs will soon be knocking on our door. Or, for many of us in the southeast, drought conditions may have forced the opening day of winter feeding to come early this year. With feed costs representing the majority of expenses incurred in all production segments of the beef industry, and winter-time feed costs making up the majority of that for cow/calf producers, exactly how we're going to feed cattle this winter without breaking the bank is undoubtedly weighing on our minds.

With the current state of the cattle market reflecting that metaphorical tunnel whose light we haven't yet been able to catch a glimpse of, we will no longer have the luxury of recent cattle prices that make the economic impact of some management decisions less appreciable. It shouldn't come as a shock that feeder cattle, regardless of how they are marketed, sell for far fewer dollars now than the unsustainably high prices that we as cow/calf producers grew accustomed to over the past few years. But because of this, it is now more important than in recent years past that every production decision we make is as strategic and economically responsible as possible, and that we minimize input costs without sacrificing production. One way that we can do this is to critically evaluate the value of our supplemental feedstuff options.

Filling the nutrient void that is left by forages or other roughages is almost always the primary goal of protein and energy supplementation. If we don't fill that void, we're not only going to sacrifice performance of the cow, but also performance of her calf. All too often, we fall victim to the "sticker-shock" effect of feed prices, and tend to select the cheaper or cheapest option. More often than not, this is a costly decision, because similar to anything else, the cheapest option is rarely the most economical option, and not all supplemental feedstuffs are created equally. Due to inherent differences in nutrient content that exist between different feedstuff options, it often requires a different amount of supplement to provide cattle with the same amount of nutrient. For example, supplying 1 additional pound of crude protein to meet a cow's requirements would require a little over 7 lbs of a 14 % crude protein commodity blend or "complete feed." However, that same nutrient void could be filled by roughly ½ that amount (3.5 lbs) of distiller's dried grains with solubles or ¾ that amount (5 lbs) of dried corn gluten feed. Although the numbers would change, the same concepts apply to energy supplementation.

In order to account for these differences, it is important to "level the playing field" so-to-speak when evaluating supplemental feedstuff options. Calculating the value of our options expressed on a cost per unit of nutrient basis accounts for differences in nutrient content and allows for an unbiased comparison of retail prices. This can be achieved by dividing the amount of nutrient

per lb of supplement by the retail price per lb of supplement. Although not complicated, these calculations can be tedious and time-consuming when comparing a number of options, or comparing options on a regular basis. To simplify this process, the University of Tennessee has developed a decision-making tool that allows you to compare the cost per unit of nutrient and relative value of different supplemental feedstuffs (W373 Supplemental Feedstuff Value Calculator), and another that does the same for byproducts of similar composition that differ in moisture content (W374 Wet-Modified-Dried Byproduct Value Calculator). These calculators contain all of the instructions necessary for their operation. And although they have been pre-populated with information for common supplemental feedstuffs, they are designed and intended for the end-user to enter unique information for available options.

When determining the value of supplemental feedstuff options, it is also important to keep in mind that there are factors in addition to “sticker price” and nutrient content that affect the value of a supplement. Are there potential savings or additional expenses related to storage, handling, or delivery of the supplement to the animal? Will one option provide valuable technologies or micro-nutrients that are not available in other options? Will they yield a return on investment greater than the expense required for provision in a supplemental feed? Will the intake limitation of an option prevent it from providing enough of a supplemental nutrient to fill the void left by forages or roughages?

Although these or others that may be unique to your operation are important factors that should be considered when making supplement purchasing decisions, they can easily be factored into cost per unit of nutrient comparisons by including their additional cost or savings that they provide when calculating retail price. After those factors have been considered, the one and arguably most important question that remains is which option is the most economical means of filling the nutrient void and helping to achieve your production goals? An un-biased comparison of the value of your options will help you to answer that question.

For more information on the topic, refer to UT Extension publication SP 793 titled “Supplemental feedstuff selection: Using value rather than retail price to select supplemental feedstuffs for beef cattle” at <https://extension.tennessee.edu/publications/Documents/SP793.pdf>. Additionally, the Excel-based calculators mentioned in this article are available for free download at the website links listed below.

Supplemental Feedstuff Value Calculator:

<http://utbeef.com/Content%20Folders/Beef%20Cattle/Nutrition/Publications/W373%20supplemental%20feedstuff%20value%20calculator.xlsx>

Wet-Modified-Dried Byproduct Value calculator:

<http://utbeef.com/Content%20Folders/Beef%20Cattle/Nutrition/Publications/W374%20wet-modified-dried%20byproduct%20value%20calculator.xlsx>