Ridin' Herd

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Keep the young ones separate

Calving time is here or quickly approaching. It's time, if you already haven't, to put the final touches on the nutrition plan for the herd after calving.

Greater need

The forages have already been tested for quality, and you know where the good hay is in the stack yard. The really good stuff needs to be targeted to the young females after calving. These females need to be in better body condition at calving, but they also need the better feed resources.

First-calf females have just had their first calf and are lactating for their first time, and we all understand that lactation has a huge nutrient demand.

Just as important, these females are about 80%-85% of their mature weight at first calving, so they also have a nutrient requirement for growth.

First-calf females are a challenge for producers in many different ways. They represent some possible new genetics for the cow herd, but also the need for some special attention at calving and specific attention to the nutrition program. Looking at a number of nutrient analyses of forage samples of hays, alfalfa and summer annuals, none of them contain enough energy to meet the young female's requirement after calving.

Feeding first-calf females

The forages mentioned above ranged in TDN (total digestible nutrients; energy) content from 52% to 57% on a dry-matter (DM) basis. Percent crude protein (CP) ranged from 7.5% to 19%. The forage with the highest protein and TDN content was the alfalfa.

First-calf females have a TDN requirement after calving that will require the diet be about 62% TDN and 10%-12% CP. When developing a ration using these forages, feeding a combination of the forages will meet the protein needs after calving. However, feeding a combination of the forages mentioned above or even full-feed of the

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58% TDN forage (alfalfa) will not meet her energy needs.

So what are the options?

A combination that includes the alfalfa and one of the other forages will meet the protein needs and will supply a diet that is 55% TDN. The diet is still deficient in energy. The energy source chosen needs to fit the operation's equipment on hand to deliver the supplemental feed source to the cattle. A feed source like corn silage may be an economical option to consider, but if you have only a cake feeder as equipment, this energy source is really not an option.

Shop for energy sources and gather prices. Compare the sources on price per pound of nutrient (TDN). Remember to get all feed sources to a 100% DM basis. This way, feeds that may have different moisture contents can be compared on an equal moisture basis.

Doing this would allow you to compare wet distillers' grain (WDG) that is 65% moisture to corn that is 15% moisture. If corn costs $3.00 per bushel (bu.), $0.054 per pound (lb.), or $108 per ton on an "as-is" basis, the cost on a 100% DM basis is $127.06 per ton ($108 ÷ 0.85). Similarly, if wet distillers' grain costs $44 per ton and the distillers' is 35% DM and 65% moisture, the cost on a 100% DM basis is $125.71 ($44 ÷ 0.35). This compares the two feed sources on an equal moisture basis

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but does not compare them on a price per pound of TDN basis.

To determine the price per pound of TDN, determine the amount of energy purchased in a ton of feed/forage on a 100% DM basis. As an example, if the corn is 90% TDN and 85% DM, then the price per pound of TDN is $0.071 per pound of TDN ($108 ÷ [(2,000 lb. × 0.85) × 0.90]). You can use this method to calculate price per pound of protein, price per pound of phosphorus (P) or price per pound of any nutrient that you wish to compare.

If the feed intake of the first-calf females after calving is 22 lb. per head per day on a DM basis and the TDN content to meet their energy needs is 62%, then these heifers need to consume 13.6 lb. (22 lb. × 0.62) of TDN per day. If the alfalfa/hay combination supplies a diet that is 55% TDN, they are consuming 12.1 lb. (22 lb. × 0.55) of TDN daily. By difference, the females need 1.5 lb. of TDN in the diet to meet their energy needs. If corn is the energy source of choice and TDN content of corn is 90% and 85% DM, then delivering 2 lb. per head per day ([1.5 lb. ÷ 0.90] ÷ 0.85) on an as-fed basis will meet the energy needs.

When supplementing energy, it needs to be supplemented daily and not every other day or every third day. This recommendation is different than when supplementing protein. The key in this situation is to make sure all females have an opportunity to eat their fair share. So if the corn is fed on the ground, make sure it is spread out. If the corn is to be fed in a bunk, make sure that there is enough bunk space to accommodate all heifers at one feeding. This low amount of supplemental corn will not have a negative effect on the digestibility of the forages.

Final thought

Separate first-calf females from the rest of the cow herd after calving. These females need a diet higher in nutrient quality compared to the mature cows. Usually producers do a good job meeting the protein needs of these young females after calving. Many times, the diet falls short of meeting the energy needs.

To keep these heifers going in the right direction, energy usually needs to be added to the diet. When using high-quality forages, not much of an energy-dense feed is needed.

You don't want to baby these females too much, but at least give them a chance to perform and be a productive part of the herd by meeting their nutrient needs after calving.