

## The year in review

### *Answers to the four most frequently asked nutrition questions of 2017*

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As we ring in the New Year, I want to take a moment to reflect upon some of the most commonly asked nutrition questions of 2017. These topics are not necessarily any more or less important than any others that we receive, however their frequency of recurrence suggest that there is quite a bit of confusion or inconsistent information available on the respective topics. Read on if you'd like to hear these questions and their corresponding answers – listed in no particular order.

*Q: Why are my first-calf heifers so hard to get bred back?*

A: It's because they're different. They're different because they're still growing. When standardized for body weight, their protein and energy requirements are roughly 10 to 15 % higher than the mature cows in the herd during late gestation and throughout the proceeding lactation. This is the main reason why we (and many others) recommend that first-calf heifers be managed separately from the mature cowherd. If the first-calf heifers are being managed alongside the mature cows, that generally means that they're being managed to meet the requirements of the mature cows, not the heifers. When that's the case, nutrition falls short, and reproduction suffers. If you want to make sure that reproduction doesn't suffer, they need to be fed to meet their needs. That generally requires feeding them something that's 10 to 15 % higher in protein and energy than the mature cows, or feeding them 10 to 15 % more of it – assuming that they're physically capable of eating that much.

*Q: I've always heard that you shouldn't feed pregnant cows very much during late gestation because the calf will get too big – is that true?*

A: No – or at least not to the extent that it will decrease calving difficulty. Restricting the cow results in the cow restricting the developing fetus. While this may affect a lot of things about how that calf performs for you in the future, birthweight is quite resilient to this type of nutritional insult, and remains relatively unchanged. And we can't increase a calf's actual birthweight beyond its genetic potential for birthweight. So even though we don't change birthweight to a meaningful degree, we inhibit that calf's immune system, as well as its potential for growth, efficiency, and reproduction. We also set the cow up for failure during the upcoming breeding season, because she will more than likely go into the next breeding season at a nutritional disadvantage. Don't be afraid to feed cows to meet their requirements and calve in an adequate state of body condition – just don't make them obese. If they go into the calving season at a body condition score of 5 to 6, they're not likely to have restricted the calf, and are going to be much more likely to re-breed during the next breeding season than if they calve at a lower body condition score. Nutrition generally only causes calving difficulty when females are

overfed to the extent that they become obese – body condition scores of 8 and 9. Below that, we generally don't run into calving issues – at least not issues that were caused by nutrition.

*Q: Do I really need to feed high-mag mineral?*

A: Yes – at least for a portion of the year. Generally speaking, that time of year is going to be early in the spring, and late in the fall. Think the time of year that we see green-ups and rapidly growing forages. For most of us in the mid-south and southeast, that can potentially be any time of year. Because of this, many could benefit from supplementing an elevated level of magnesium (Mg) year-round. But one of the things that we need to consider is intake. Traditional high-mag minerals – let's say 10 to 18 % magnesium – are notorious for low consumption, and are generally labelled for an expected consumption of 2 oz. per head per day. This may not be the case for all, but it is for many. There's quite a bit of concern that feeding a low-consumption traditional high-mag mineral year-round may lead to sub-clinical deficiencies in other important minerals during times of need. I think that's a valid concern. So if you're interested in feeding an elevated level of Mg year-round, look for an option that is labelled for a higher level of consumption, and intermediate in terms of its Mg content. And don't forget to keep some records that will verify that the cattle are actually consuming that amount. Why? Because a mineral supplement that contains 5 or 6 % Mg that is consumed at a rate of 4 oz. per head per day will provide cattle with the same amount of Mg as a 10 or 12 % Mg supplement that is consumed at 2 oz. per head per day – but it'll do it without limiting consumption of other minerals that may also be critically important during that period of time.

*Q: These cows are eating too much mineral – can I just cut it with white salt to decrease consumption?*

A: You can, but I highly recommend that you don't unless you're doing so under the advice of your nutritionist, or the label specifically states to provide an additional source of salt. Why not? Because cattle do adjust their mineral consumption in order to meet their demands for certain minerals – at least to a small degree. Now they generally won't self-regulate when provided with a “buffet” of individual mineral ingredients. But when provided as a complete free-choice supplement, their intake generally changes as demands change (dry vs. lactating) and as forages mature (growing vs. dormant). However cattle will only consume a certain amount of salt per day, which is how the consumption of most complete free-choice mineral supplements is limited. When we add salt to an already salt-limited mineral supplement, we do two things: 1) we limit the animal's ability to adjust their consumption (within a small range) to meet their needs, and 2) we change the formulation. So if that isn't the best option, what is? Moving the mineral feeder. As simple as it sounds, 9 times out of 10, mineral consumption can be adjusted to the desired level by moving the mineral feeder. If cattle are over-consuming mineral, move the feeder farther away from areas where cattle are spending a considerable amount of time, such as waterers or feeding locations. If cattle are under-consuming mineral, move the feeder closer to these areas.