



A NEWSLETTER OF DAKOTALAND FEEDS

The Silver Bullet

There always seems to be some cure-all someone is trying to sell you that is 'the silver bullet' and will take care of every problem you could ever encounter, from lameness to BRD to scours to hardware. Someone tells you, "I started feeding (insert name of next big thing here), and we just don't have any problems." Some products out there are actually pretty good at alleviating one issue or another, but you need to know what you want from a product compared to what it is designed to do.

Total Protein and Immunoglobulins in Cow Colostrum

	CONTROL	DIAMOND V YEAST
Total Protein, grams/L	70	82
a-globulin, grams/L	6.30	7.60
b-globulin, grams/L	13.50	14.80
c-globulin, grams/L	48.50	56.20
Calf Immunoglobulin index at 48 h of age	10.50	11.1
Total immunoglobulin index at 3-4 wks	.70	.77

Kinal et al. 2007. Bull Vet inst Pulawy. 51: 105-108

Diamond V Yeast Culture is one component of the mineral program you get through your Purina Ultimate Breeder or XPC minerals and Stress Care tubs or supplements. There are a number of reasons it is included in our products. First, Diamond V has done the studies to show that the yeast culture they make improves colostrum quality AND that improving colostrum quality enhances the immune system of the calf receiving that colostrum. In addition, Diamond V Yeast enhances forage digestibility and results in greater milk production in the cows. In starting cattle, research has shown that Diamond V Yeast decreases morbidity and mortality. The big point here is **Diamond V has done their research**, related it to your operation, and made it an **affordable** option for you. Theories are great and all, but when we put something in your feed, we need the company to show us the proof that their product has value. The table below shows the difference in immunoglobulins that give immunity to the calf when the cows were fed no yeast culture (control) or had Diamond V yeast prior to calving. The g-globulin is very important in developing immunity in the calf and that was significantly increased by feeding Diamond V Yeast Culture to the cow prior to calving. The improvement in colostrum quality led to improved immunity in the calf, which is critical for calf health. Again, this data was generated when feeding the yeast culture to the cow, proving that it is a good inclusion for your mineral program.

Mineral Promotion Going On NOW!

The \$20/ton Altosid® Fly Control discount is available on Wind & Rain® Storm and RangeLand® bagged minerals and Wind & Rain® Mineral tubs with Altosid®. This discount is available on all qualifying orders. Order minimums apply per plant/location requirements. Discount offer ends June 28, 2019. See store for details.



Diamond V is included in our mineral products as yeast culture. This means you are getting the yeast cell and all that it produces. It does not have to be live-cell when the cow consumes it to get a benefit. Some other DFMs or probiotics must be alive and capable of growing in order for the cattle to get any benefit from them. That means additional handling considerations for you because temperature abuse means killed organisms that are no longer capable of growing and doing what they were supposed to do. That is not a problem with Diamond V Yeast Culture.

You may have heard of MOS type products and heard that they will cure scours if you put it in your cow mineral. I have looked at the data on these types of products and believe they have their place in feeding pigs, chickens, and newborn calves (via milk replacer) that do not yet have a functioning rumen. We include it in our milk replacer products. However, when it comes to feeding it to a mature cow, I have not yet seen the value or the research to back up these claims.

The theory behind MOS (mannan-oligosaccharide) is that this particular sugar can bind pathogens that cause scours in your calves. So in theory, you feed the cow MOS, it somehow bypasses the rumen, binds all the pathogens in the small intestine of the cow and the calf never gets scours. There are a number of issues with this theory. The rumen is home to billions of bacteria per cubic centimeter (cc) of rumen fluid and the MOS products I have seen are not rumen-protected and since they are sugars, can be digested by the rumen bacteria. The rate of passage of feed through the rumen is slow to allow for greater extent of digestion and with very high bacterial populations, it is unlikely that the MOS would make it to the intestine where absorption occurs. With bacteria like E. coli there are a number of species, some of which cause disease and others that won't. E. coli are found in the gut of nearly all animals. MOS products cannot be transferred directly to the milk. It is a sugar, and would be broken down into its smaller components upon digestion. So, how does this result in curing your scours problem by putting it in your cow mineral? It doesn't.

Diamond V Yeast Culture is digested in the rumen, and that is how it works. Diamond V Yeast is the yeast cell and all that it produces. It contains some MOS from the yeast cell wall, but also has other growth factors and metabolites for beneficial rumen microbes that MOS does not have. Microbes in the rumen digest the yeast culture to the benefit of the microbes and the animal and it is a combination of factors that lead to these benefits rather than a single component. The research showing the benefits is repeatable.

When you are scared of scours, general management practices would tend to improve; including moving cattle to dry areas, bedding more, improving vaccination protocols, and using a quality mineral program. All of these components are important to improving calf health, but be sure to give credit where it is due. Hopefully you have done the work to figure out why or how something improved your outcome. Diamond V has shown us why their product is worth putting in your mineral every day. When you consider the cost, and proven benefits of Diamond V compared to a MOS product, I think you would find adding Diamond V to your program is going to have a far better return on your investment. The research has been done to prove it adds value to your operation.

Roxanne Knock, PhD

What do you need to be thinking about this time of year?

- Book mineral for the breeding and grazing seasons
- Get prepared for calving- get chains, OB sleeves, lube, and calf puller in place
- Have a colostrum replacement (not milk replacer) and electrolytes on hand for calving season
- Remember to HEAT TAPE lines on liquid systems- this keeps the line fluid.
- Think about ramping up your mineral program for cows prior to calving, ask about Ultimate Breeder 8
- Get Stress tubs for the first and second calf heifers before calving
- Feed Rumensin to the cows to improve feed efficiency and to limit environmental coccidiosis prior to calving
- Check with your Livestock Production Specialist to see if your ration is meeting the calves' needs
- Check your water source and make sure it is not freezing up- poor water intake can limit performance
- Inventory your projected feed resources and project your winter feed needs so you can plan accordingly
- Talk to your veterinarian about your newborn calf protocol

TO RECEIVE THIS VIA EMAIL, PLEASE SEND REQUEST TO: ROXANNE@DAKOTALANDFEEDS.COM



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