



SUMMER 2015 NEWSLETTER

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Ruminant Mineral Management - [Rory Lewandowski](#), Extension Educator Athens County, Buckeye Hills EERA

At the second session of the Ohio Beef School, Francis Fluharty gave an in-depth presentation on management approaches to mineral supplementation. Francis is an OSU ruminant nutritionist and researcher located at OARDC in Wooster. Even though his presentation was geared towards beef cattle the principles he covered apply to all ruminant livestock, sheep and goats included. Important points that I took away from the presentation include mineral absorption, effects of mineral deficiencies, and some common mismanagement errors associated with mineral feeding. Let's look at each of these in a little more detail.

There are several important factors that affect mineral absorption. One of the most important is the source of the mineral. Oxide forms of minerals tend to be the cheapest minerals on the market. Francis said that with the exception of magnesium oxide, there is no other mineral that should ever be fed in the oxide form because of the low absorption of oxide minerals. Organic mineral forms, sometimes called chelated minerals have the highest absorption followed by sulfate (SO₄) or carbonate (CO₃) forms. Another factor that affects mineral absorption is interactions with other minerals. For example, high potassium reduces magnesium absorption, high levels of zinc reduce copper absorption and low copper levels reduce iron absorption. Grinding can help to increase mineral absorption. Finally, age and nutritional status of the animal will influence absorption. Young animals absorb minerals better than adults.

What happens if we do not provide minerals for our animals and/or minerals are deficient in the diet? Well, probably nothing as drastic as death of the animal. Hopefully it doesn't take something so drastic to get the attention of a livestock owner, but what is known is that sub clinical trace mineral deficiencies occur more frequently than what is actually recognized by livestock owners. A mineral deficiency or inadequate intake of minerals can result in such things as: reduced forage intake, lower reproductive efficiency, poor disease immunity, slower daily gains, and poorer feed conversion. Unless you are keeping records and tracking trends, none of these production factors may be obvious, and yet each one affects the profitability of your operation.

Francis went over some common mismanagement approaches to mineral feeding that I thought offered some excellent insight. He asked a series of questions that all began with; "Have you ever . . ." and included:

- * "Cut" your mineral with salt?***
- * Switched to a cheaper mineral because cattle (or read sheep or goats) "rushed" your high-priced mineral?***
- * Claimed deer don't need minerals (as a rationale for why your livestock don't need minerals)***
- * Blamed a bull for not breeding your cows?***
- * Switched to salt blocks because they last longer?***
- * Wondered why feedlots don't have mineral deficiencies?***

Francis spent some time describing the management error in each of these approaches and a thorough summary of all his comments is beyond the scope of this article, so I will highlight a couple of key points that struck me that are centered around the salt and amount of mineral consumed issues.

Anyone who has ever played around with adding salt to a mineral mix knows that the amount of salt has a significant impact on mineral intake. Francis said that salt is the only mineral that cattle (again think also sheep and goats) will try to control their intake of. The reason for adding salt, or switching to a cheaper mineral or switching to salt blocks is because the livestock owner thinks that his animals are over consuming minerals and increasing production costs excessively. Adding salt will decrease consumption. Francis said this is a management error. First and foremost, the goal of providing minerals is to get animals to consume the mineral. Consumption is a good thing. Second, Francis said that mineral consumption can vary not only daily but also seasonally. He advised regularly monitoring and recording mineral consumption plus recording the total number of animals over a year period of time before making statements about over consumption.

There are a couple of reasons for this monitoring and record keeping. If animals are being switched to a higher quality, more available or more readily absorbed mineral following a low quality mineral program, or possibly no mineral program, then the livestock owner must recognize that it can take up to 9 months for an animal to "catch up" from the deficiency created by that type of former mineral program. Secondly, take into account the fact that when a high quality mineral is offered, not only the adult, but also the young animals are consuming. Francis said that he had consulted with many cattlemen who complained about over consumption of mineral because they only figured in the number of adult cows when they did their calculations. Young stock (calves, kids, lambs) must be taken into account based on their percentage of the adult's weight. Multiply that additional weight by the expected mineral intake. You may very well find that there is not an over consumption issue.

Francis concluded his presentation by reminding livestock owners that often mineral deficiencies go undetected, resulting in decreased livestock performance. Mineral requirements change with the stage of production and environmental conditions. Minerals have complex interactions and mineral antagonisms exist, so that an unbalanced mineral program may also result in mineral deficiency. Finally, Francis said to remember that a mineral program is just one part of an overall farm management program.

MESSAGE FROM MIKE

As our customers welcome the spring weather, its time to look back on the fall and winter supplement program and evaluate its effectiveness. Performance measurements may vary by producer, but at the end of the day, we all have to measure something to maintain a profitable operation. Quoting Mike Eisenbart from Arrowhead Feed in Burlington, Colorado, "Don't listen to me, use your own pencil to determine the cost effectiveness of your feeding program".

I would like to thank every customer that we have been given the opportunity to service this past feed season. We have seen some amazing growth in parts of our territory, and welcomed aboard many new customers. The past several months have not gone by without some challenges, but I feel like "Team MLS" has done a great job maintaining a high level of quality products, and provided a level of service that is second to none in our industry.

As we move in to a traditionally slower time of year for the tub business, please keep in mind the mineral product options that MLS offers. These tub minerals are a great replacement to bagged mineral products, and will outperform bagged mineral under all weather conditions. Consistent daily mineral intake is the key to providing the required nutrients that will maintain optimum performance.

Thank you again for being an important part of "Team MLS". We appreciate your continued support, and the confidence you have placed in us as your tub supplier.

Mike Chumley
General Manager
Midcontinent Livestock Supplements

MLS MINERAL SUPPLEMENTS

MLS #12

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Supplement Tub is the ultimate in weather-proof mineral supplementation for year-round feeding to beef cattle. Manage intake and deliver controlled, consistent mineral nutrition. *Available with IGR Fly Control.*

Go beyond conventional methods of fly control with ALTOSID® (IGR) in high quality supplement tubs from MLS, the most economical way to control horn flies while supplementing your herd. No labor, no penning, no ear tags or sprays!

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MLS #25

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Mineral Supplement Tub is designed for feeding to stocker cattle and replacement heifers. This product is high in energy and has concentrated vitamin and chelated trace mineral levels. *Contains Zinpro®Availa4®*

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