## OHIO STATE UNIVERSITY EXTENSION

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## **Feeding Expense of Mineral**

I am sure you have heard the say, "You get what you pay for". This saying seems to hold true the older I get just like the things your parents told you when you were young. The older you get the smarter your parents seem to be.

When it comes to mineral there are several things that can alter the cost of a bag of mineral. There are different levels of ingredients that make up the mix. Sometimes this is all minerals that are in different levels, like Vitamin A or maybe Phosphorus. There is a host of other things that could be added, like fly control or even antibiotics if you have a Veterinarian Feed Directive.

I started putting this together prior to the Memorial Day Holiday, but now made a few changes on Tuesday morning. Part of the reason for the changes is that a similar post was included in the Beef Blog this morning. It fits right with what I was planning to discuss.

Mineral is one of those necessary evils so to speak. The animals need it, but it can be expensive if the animals are lacking certain things. That statement can be taken two ways, which way are you thinking?

The expense can be the lack of production or maybe even lack of reproduction. Even in a small herd of somewhere close to the average number of cows per herd in the State of Ohio, which is somewhere around 17 cows, the lack of a good mineral program can be costly. The other way it is expensive is the cost per bag. If only 1 or 2 of those 17 do not breed and you lose the value of 1 or 2 calves, that can hurt the bottom line. Consider that is only one calf, and at market as a 500 pound calf, if it only brings \$1.25 (below current market value) that is still around \$600 after marketing fees. How much mineral can you buy with \$600? Simple math of \$25 per bag equates out to 24 bags (@50 lbs. per bag) is 1200 pounds of mineral. Most mineral supplements are formulated so a cow will consume about 4 ounces per day. That means the 17 cows should consume less than 5 lbs. per day, so a bag should last over 10 days. If just 10 days, then 24 bags would take you 240 days or about 8 months. As you will read below, there are more benefits. Better production would increase pounds per calf, too.

Ok, I know, your cows eat a whole bag when you put it in the feeder, and you only have 12 cows. They will do that. Makes it hard to pour a \$25 bag of mineral out that is to last 10 days and see it disappear in about 5 minutes. Makes it even harder if they do the same thing the next day. If that is the case, they have not had mineral for a while, or at least not near enough or often enough. They will eventually level out and consume about the suggested rate once their needs are met. Then you just have to keep it available so they stay level. Below is the post that showed up in the Beef Blog that has a little more research and numbers than what I stated. Most of what I discussed was simple barnyard math, and my experiences with cattle over the years. Yes, mine have consumed a whole bag at times, too.

If you can help your clients understand mineral problems and correct them, you should unlock significant improvements in performance, reproduction and potential profit, says Dr. Jeffery Hall, head of the toxicology lab for the Utah Veterinary Diagnostic Laboratory.

Depending on severity of mineral problems and money spent to correct them, the return on investment can be five to one or slightly higher, Hall says.

Dr. Hall says based on thousands of samples from across the U.S. that come through his lab each year, the most common mineral deficiencies in beef cattle are:

- •Copper -- 60-70%
- •Selenium -- 10-70%
- •Vitamin E -- seasonal or drought-related
- •Vitamin A -- seasonal or drought-related
- •Zinc -2 10% or drought related

Here are three examples of why the return can be significant.

- 1. Correcting mild deficiencies can improve reproduction, decreasing open cows by 2-4%. Correcting severe deficiencies can decrease the number of open cows by 5-15%.
- 2. Improvements in neonatal calf health from correcting these common mineral deficiencies can include more saleable calves, less sickness, less labor expense and less medicinal expense. Improvements in the health of young calves can include less summer pneumonia, fewer weaning health issues and improved vaccine efficacy.
- 3. Weight gain improvements in a cow-calf operation can be 20-35 pounds per calf when correcting minor deficiencies, and 50 pounds or more when correcting major deficiencies.

These are particularly good numbers to remember when newly supplemented cattle, that have been deficient, are eating the producer out of house and home and trying to get caught up from their mineral deficiency. It may seem horribly expensive at the time, but consumption will drop to normal when their bodies are recharged.

## **Time Flies – Seems Unreal**

As I write this on Tuesday morning, I started to send it to the newspapers with just the mineral info written above, but then it hit me. A couple of months ago I quit sending my weekly column to the newspapers in Highland County because there is a new Agriculture and Natural Resources/Community Development Educator in Highland County, Brooke Beam.

Well, today is the last column that I will be sending to the Brown County newspapers for the same reason. James Morris will begin as the Agriculture and Natural Resources/Community Development Educator in Brown County tomorrow.

I started in Brown County in August of 1998. I have met and worked with some great people and friends over those nearly 20 years. The last seven years have not been quite the same as I have also been responsible for covering Adams and Highland Counties since the beginning of 2011. These last few years it has been more of hitting the high points and providing the necessary programs in all 3

counties. However, the first 12 plus years included several on farm research type projects, those were the fun work times. I had assistance from State Specialists from both Ohio State and UK doing on farm demonstrations and research on local farms and the Ripley OARDC farm. This was some of the best education as you could actually see the results. I have used these results many times in teaching.

Many friends that I wish to thank for welcoming me and it was an honor to work with so many of you both in the office and in the community. I will not be far, as I will again be doing one county. I will be in Adams County, hopefully getting back to doing more of the demonstrations and research part of OSU Extension. Again, thanks for the memories, and YES I will be at the Little State Fair.

## **Dates to Remember**

June 11 Pesticide Testing at the Old Y Restaurant at noon. Pre-register at 800-282-1955 or <a href="http://pested.osu.edu">http://pested.osu.edu</a>