

Midcontinent Livestock Supplements

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FORAGE ENHANCING PROGRAM

SPRING 2015

DISASTER TIPS

Jeff Anslinger, MLS Area Manager, Missouri, Kansas, Iowa and Nebraska

When your phone rings in the middle of the night it is usually never a good thing, as was the case the night of October 16th.

A friend and MLS dealer called to say his barn was on fire, so I jumped up and headed out to see if I could help. Unfortunately, the barn, equipment, and tubs stored there were a total loss.

Rebuilding after a fire is never an easy process—the cleanup, dealing with insurance, and trying to remember what all you had that is now gone, let alone the fact of dealing with "why did this happen?!".

After seeing what all they have gone through with insurance and trying to figure out what all is gone, here are a few ideas just to give you some peace of mind in case anything should happen:



- Make sure your insurance is up-to-date with current values of buildings and all contents of buildings.
- Everyone has a camera or phone with video and audio capabilities, so just walk through your buildings and record the contents.
- Open drawers and tool chests and video as well as audio record the contents. This should be done once every six months or at least once a year.
- Have wiring in your buildings checked. Farm outbuildings are susceptible to wiring damage inside and out due to temperature and humidity fluxuations, dust, and everyday use.
- Keep an inventory of vehicles and implements stored in buildings, complete with serial numbers.
- Be prepared with this information for a lot of questions from insurance adjustors. It will make it a much quicker and easier process.
- Have a good working relationship with your insurance agent and talk with them about what happens if you have some kind of disaster.

We hope and pray none of you ever have to deal with any type disaster and we hope that these few tips can help if one does occur.

CONGRATULATIONS HAYLEIGH!!

On November 1, 2014, Hayleigh Brunkhorst, age 20, received her American FFA Degree during the National FFA Convention in Louisville, KY. Hayleigh is the daughter of Missouri MLS Plant Manager, Neal Brunkhorst. She is a member of the Fayette, MO FFA chapter where she is active in exhibiting market lambs and market hogs as her SAE project. She is currently a Junior at Northwest Missouri State University where she is majoring in Agricultural Business with a minor in Animal Science.



Micro-Minerals Important to Bull Fertility By Troy Smith Reprinted from the Beef Cattle Website----http://www.beefcattle.com/



Conscientious cattle managers put considerable effort into managing cow herd nutrition. That includes making sure brood cow and replacement female diets meet requirements for various nutrients, including minerals. The bull battery, however, may not receive as much attention particularly during the off-season. When their work is done, bulls are gathered up, placed somewhere "out of the way" and managed separately from the cow herd. Thereafter, it isn't hard to unintentionally neglect things like mineral supplementation. But year-round management of bull nutrition is important. Even elements required in trace amounts - the so-called microminerals play important roles in the bulls' future reproductive performance.

While numerous minerals are considered essential to optimum cattle health, beef cattle nutritionist Jeremy Martin reminds producers that certain micro-minerals do have direct effects on bull fertility. Affiliated with Nebraska-based Great Plains Livestock Consulting, Inc. and a seedstock breeder himself, Martin says fertility could be at risk if dietary levels of zinc, copper, manganese or selenium are deficient. On the other hand, excessive levels of specific minerals can hinder the utilization of others, and compromise fertility.

Zinc is often touted for its part in enzyme secretion and immune function. According to Martin, zinc also is a key player in bull mineral nutrition because of its involvement in the production, storage and secretion of male hormones. Among those is testosterone, which is responsible for puberty and sex drive (libido). Zinc is necessary for the proper functioning of primary and secondary male sex organs. It is also crucial to spermatogenesis – the process by which sperm is produced. There has been ample university research to document how deficiencies in dietary zinc can lead to delayed puberty in bull calves and low sperm count in older bulls. While zinc is not necessarily more important than other minerals, maintaining adequate dietary levels is necessary since cattle have limited capacity for storing zinc within their bodies.

Copper also impacts both libido and semen quality. Severe copper deficiency can result in damaged testicular tissue and bull sterility. However, excessive copper can be detrimental to fertility, resulting in reduced sperm count and vitality. Copper and zinc are required in proper ratio, much like the macrominerals calcium and phosphorus. Studies have shown that supplementing copper in the absence of adequate zinc reduces the effectiveness of copper supplementation. Generally, copper-to-zinc ratios of 1:3 to 1:5 are considered optimum.

"When present at high enough levels, other minerals (such as sulfur, iron and molybdenum) can be antagonists to copper and interfere with its absorption," notes Martin, advising producers to monitor feedstuffs and drinking water for potentially problematic levels of those minerals.

Selenium is another micro-mineral associated with development and maturation of sperm cells. Deficiencies of manganese can result in reduced libido. Due to their respective contributions to development and maintenance of skeletal tissue, manganese, copper and zinc also impact the physical soundness necessary to a bull's reproductive performance.

Because of the potential for multiple mineral interactions, Martin says producers must always provide a balanced mineral supplement. Attempting to address an identified deficiency by increasing the dietary level of a single mineral element may create an imbalance resulting in reduced absorption and utilization of different elements. Mineral nutrition is both complicated and complex.

"Fortunately, a 'breeder' mineral used for the cow herd usually is sufficient for bulls as well," states Martin, explaining how commercially available "breeder" formulations contain higher but balanced levels of zinc and copper. "Kansas State University (research) has shown that higher levels of zinc were beneficial to the fertility of young bulls. There's no reason to think extra zinc wouldn't benefit mature bulls as well."

The extra punch probably isn't necessary during most of the off-season, but Martin says bulls are likely to benefit from strategic use of a mineral supplement containing higher levels of micro-minerals. Feeding of "breeder" mineral could begin as early as 90 days prior to breeding season, but bulls should receive it for at least 60 days before turnout. That's because each sperm cell, after leaving the testes but prior to delivery at ejaculation, undergoes a maturation process that requires 60 days to complete. So sperm quality at turnout is influenced by a bull's nutritional status during the previous two months.

While studies have delivered variable results, Martin believes there is sufficient evidence that organic (chelated) minerals are more biologically available to cattle than are inorganic sources of minerals. He recommends that at least part of the micro-mineral content of a supplement be derived from organic sources.

"I prefer that 25 to 50 percent of zinc, copper and manganese come from chelated sources," explains Martin. "It's just a little extra insurance when a good portion of those important micro-minerals are in a form that's more readily absorbed. It makes the mineral cost a little more, but I think it's worth it."

Martin also urges producers to monitor consumption of free-choice mineral mixes, to know that bulls are consuming the recommended amount. Usually, consumption can be manipulated by adjusting the proportion of salt contained in the mineral mix.

"It's a good idea to note when mineral is put out and then track consumption. It's a nutritional concern but also a cost concern," states Martin.

When controlling consumption is difficult, some nutrition consultants and veterinarians now recommend use of an injectable product containing zinc, copper, manganese and selenium. They may advise administration three to four times per year, or at least one injection in advance of the breeding season. So far, results from studies involving injectable micro-minerals look favorable. However, research is limited.

"For me, the jury is still out," offers Martin. "It's a good idea, but it's still too early for me to recommend an injectable product."

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