

Nutrition Edition

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*Advice on preventing trace mineral deficiencies provided by Martha Moen, Ph.D.

Do Not Let Trace Mineral Deficiencies Sneak Up on Your Herd

Deficiencies can be hard to detect but are avoidable with complete mineral nutrition.

Your cattle have been slightly off for the past several months, but you cannot figure out why. You have not changed your herd management, but cattle are not achieving the performance you expect. What is going on?

It could be a trace mineral deficiency.

Although needed in only small amounts, trace minerals can make a significant impact on your herd's performance, including reproduction and immunity — both of which affect your bottom line.

Deficiency downfalls

"Some early abortions and embryonic deaths are due to trace mineral deficiencies of the mother," says Martha Moen, Ph.D. and cattle consultant with Purina Animal Nutrition. "The mother's trace mineral deficiency can also lead to deficiencies in colostrum for her calf and the potential for early calf death."

Early abortions and calf deaths mean fewer animals to sell when it is time to take the cattle to market. This means fewer dollars in your pocket, and the potential economic impact may extend further.

"Instead of having a 90 percent conception rate, we'll often see lower conception rates in herds with trace mineral deficiencies," she says. "Cattle simply don't perform as well without adequate minerals."

Trace mineral deficiencies can go undetected for some time, but one critical deficiency can cause sudden cattle deaths.

"If you're grazing cool-season forages, magnesium deficiency can cause death," Moen says. "Most producers are aware when they need a high level of magnesium in the diet. But, if a producer is unaware, this deficiency can have a sudden, negative impact on the herd."

Complete mineral, correct amount

If you are not feeding mineral at all or believe that "any" mineral is enough to prevent a deficiency, Moen recommends rethinking your strategy.

"If you're not providing a complete mineral, or cattle don't eat enough mineral, they can become deficient," Moen adds. "Not all minerals are palatable. If cattle aren't consuming mineral at target intake levels, then they're not meeting their mineral needs."

Another challenge can be taking the time to figure out how much mineral cattle are consuming.



"Too often producers guess how much mineral cows are consuming, but they can't know how much they're eating unless they take the time to calculate intake," she says.

Identifying deficiencies

In Moen's experience, cattle with trace mineral deficiencies typically do not show clinical signs.

"Most of the time, it's an off-color coat and looking at production records," she says. "But, it's easy to blame appearance or performance on something else instead of a trace mineral deficiency."

The following are common signs of trace mineral deficiencies:

- Off-color coat
- Poor calf immunity
- Reduced weight gain
- Reduced reproductive efficiency

Because trace mineral deficiencies are hard to detect, Moen says discovery often comes from using the process of elimination. Liver biopsies can also help pinpoint a trace mineral deficiency.

Proactive versus reactive

The good news is being proactive can help you avoid a deficiency.

"One way to avoid finding yourself in this situation is to provide a complete, quality mineral to the herd year-round," Moen says.

Talk with your local veterinarian or nutritionist to learn if your mineral is providing the right trace amounts for your area.

If you suspect a trace mineral deficiency, start using a complete mineral right away; however, do not provide additional salt because salt will dilute the mineral and cattle won't get the recommended trace mineral amounts. A complete mineral will provide plenty of salt.

If you do have a deficiency, it will not be a quick fix.

"It will take several months of consistent mineral intake to get the herd back on track," Moen explains. "The best way to make sure a deficiency doesn't sneak up on your herd is to offer a complete mineral at all times." **HW**

Editor's note: Article provided by Purina Animal Nutrition LLC.

