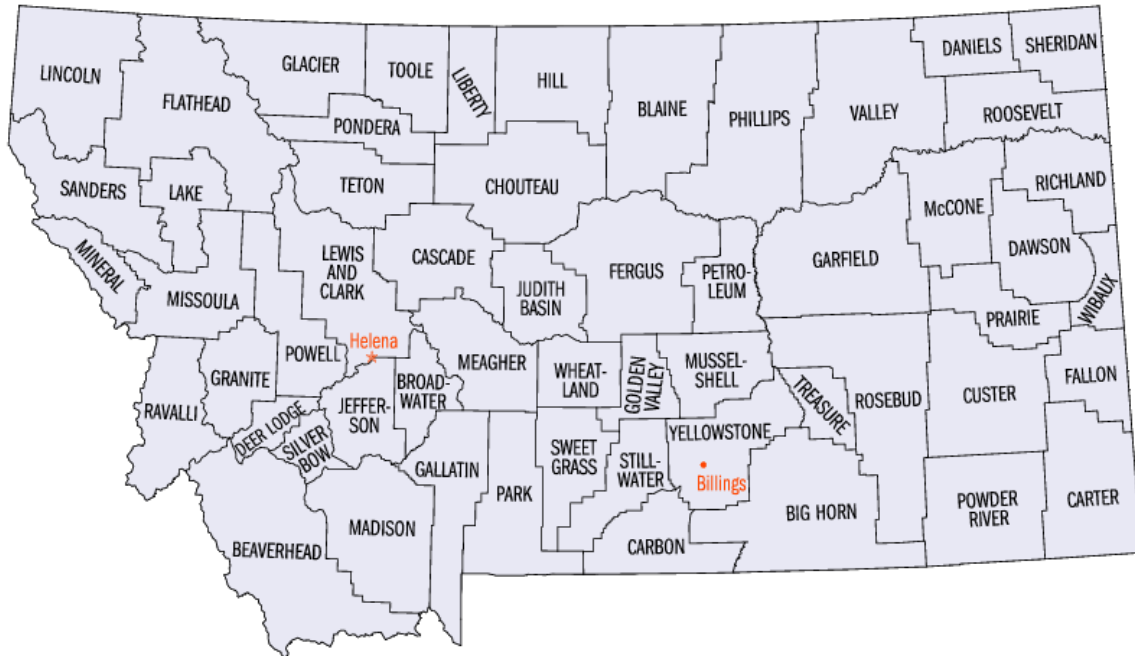


Multimin PUTS MICRO MINERALS ON THE MAP!

MONTANA – Micro Minerals (Cu, Mn, Zn, Se) in Cattle:

Data from Montana and Texas indicate that copper and zinc are deficient in many of the forages cattle consume. Coupled with the antagonistic effects of Mo and S, this may require additional supplementation with copper, because it would also appear that there are a fairly large number of cows who have the potential to be deficient to marginal in liver Cu and Mn stores. Supplemental trace minerals have been shown to have positive effects on reproduction, immune status, disease resistance and feed intake of incoming feeder cattle. Although the data is somewhat variable among experiments, it has been shown that complexed minerals are more available than inorganic minerals and can be used in the presence of dietary antagonists, and when the animal is stressed.



Cattle with trace mineral deficiencies often show no clinical signs until they are severely deficient, but a chronic deficiency inhibits performance and decrease production.

Clinical signs of copper deficiency include:

- Immune suppression – disease breakouts and failure to respond to vaccination
- Rough, red dull hair coat
- Anemia

Clinical signs of selenium deficiency include:

- Muscle degeneration (white muscle disease)
- Reproductive failure
- Immune suppression

Clinical signs of manganese deficiency include:

- Bone abnormalities
- Reduced growth rate
- Reduced fertility

Clinical signs of zinc deficiency include:

- Compromised hoof integrity
- Bull reproductive failure
- Anorexia and weight loss esp. in calves

Where does Multimin fit in?

- Multimin provides zinc, manganese, copper and selenium in a readily available form as an injection.
- Multimin rapidly increases trace mineral status of animals.
- Multimin rapidly increases liver storage of trace minerals following injection.
- Multimin bypasses antagonists in feed, forage, distillers grain and drinking water that can reduce the absorption of these critical trace minerals.

Reference :

Paterson J., Swenson C, Johnson B, Ansotegua R. Montana State University and Zinpro Corporation
Assessing the Role of Copper and Zinc in the Cow-Calf Production Cycle