

Multimin PUTS MICRO MINERALS ON THE MAP!

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



LEGEND






-  GENERAL LOCATION OF RELATIVELY BROAD AREAS OF HIGH (>10 TO 100 PPM) MOLYBDENUM FORAGE PLANTS ASSOCIATED WITH INCIDENCE OF MOLYBDENOSIS.
-  LOCALIZED AREAS, PRINCIPALLY ISOLATED ALLUVIAL FANS, SWALES AND DEPRESSIONS, OF HIGH MOLYBDENUM PLANTS.
-  AREAS WHERE GENERAL BACKGROUND LEVELS OF MOLYBDENUM ARE MODERATELY HIGH IN SOILS AND PLANTS.
-  PRINCIPAL MOUNTAIN RANGES.
-  PRINCIPAL RIVERS.

Fig. 1. *Distribution of general areas of molybdenum toxicity in grazing animals in the western U.S.*

A NAHMS beef survey of forages collected in CO indicates that most forage samples are marginal to deficient in zinc and a fairly high proportion of the forage samples contain an adequate amount of manganese. Copper levels varied from marginal to adequate, which is compounded by the high iron content (above 350-400ppm) and the relatively high levels of molybdenum (above 1 ppm) in many forage samples. Iron and molybdenum are antagonists that can reduce the availability of copper.

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 :

Corah L. Understanding basic mineral and vitamin nutrition.