

## Multimin PUTS MICRO MINERALS ON THE MAP!

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

States east and northeast of Missouri (i.e., Illinois, Michigan, Ohio, and Indiana) produce feed grains and forages that are deficient in selenium (less than 0.1 ppm selenium). Generally, cattle feeds grown on sandy or acidic soils in other areas may also be deficient in selenium. Some Missouri soils fall into these categories. Occasional soil tests are necessary to determine if selenium deficiency may be a problem on a particular farm.



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 :

Hale C, Olson K.C. Mineral supplements for beef cattle.

