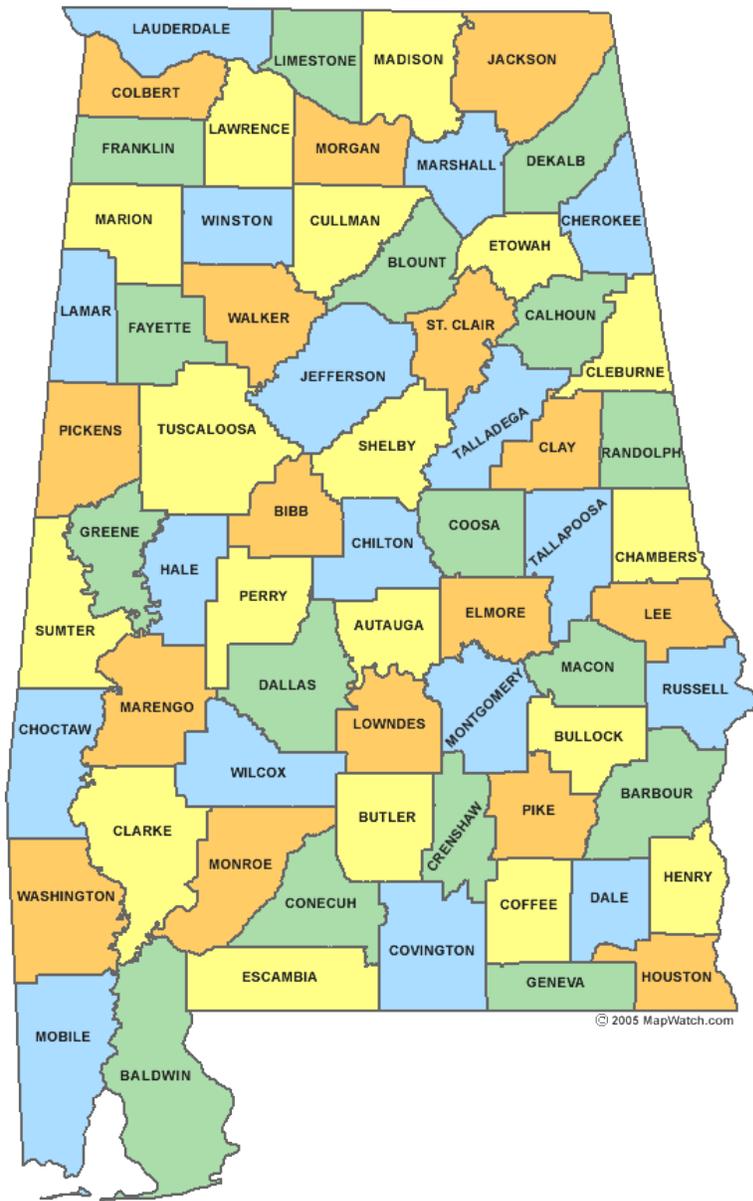


Multimin PUTS MICRO MINERALS ON THE MAP!

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

Surveys have suggested that copper and zinc may be limiting nutrients in many situations. In a national forage survey of 352 samples, only 2.5% of the samples contained adequate zinc and 36% of the samples contained adequate copper. The availability of minerals may also be affected by the distribution and form of minerals in the feedstuff, as well as interactions with other minerals or dietary components that inhibit absorption or utilization of a given mineral. North Carolina State University researcher Dr. Jerry Spears suggests that mineral deficiencies in ruminants fed forages often result from low availability rather than low concentration of a given mineral.



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., D. Dargatz and C. Peters. 1996. Nutrient forage survey results: Trace mineral and related nutrient levels. Kansas State Univ. Cattlemen's Day Report of Progress 756:83.

