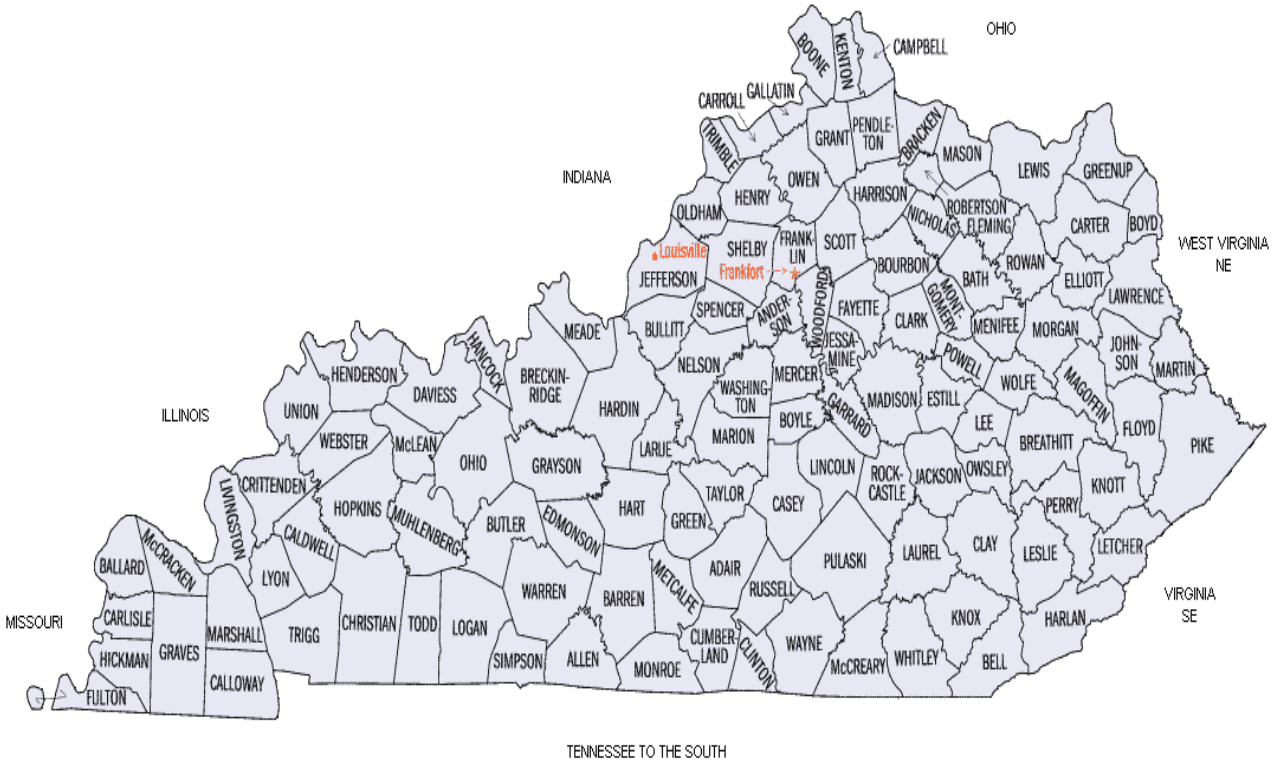
Multimin PUTS MICRO MINERALS ON THE MAP!

KENTUCKY – Micro Minerals (Cu, Mn, Zn, Se) for Grazing Cattle:

Feedstuffs grown in Kentucky are likely to be copper-deficient. Clinical signs of copper deficiency may include a discoloration of the hair coat (for example, black hair of cattle can become reddish). Since copper is stored in the liver, the best way to determine copper status is to biopsy the liver. Blood tests for copper can be inaccurate because only severely deficient cattle will show low concentrations of copper in the blood. Cattle with marginal copper status may have adequate blood concentrations of copper but have liver stores that are inadequate for proper immune function. Proper supplementation will help avoid marginal deficiencies, which can decrease the ability of cattle to resist infections.

Many feeds grown in Kentucky will not provide adequate amounts of selenium, copper, and zinc. Vitamin E levels also can be deficient by the time the plant is stored and then fed. All four of these nutrients when provided at proper amounts have been shown to decrease mastitis at calving. Selenium, copper, and zinc should be supplemented at the previously mentioned levels. Vitamin E may need to be supplemented if the heifers are not consuming good quality pasture.



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 :

Scaletti R.W., Amaral-Phillips D.M,Harmon R.J.Using nutrition to improve immunity against disease in Dairy Cattle: Copper, zinc, selenium and Vit E.