MULTIMIN® USA, INC

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There is strong scientific evidence that inadequate nutrition is the primary reason high-risk calves fail to mount an effective immune response to disease and treatment or vaccines.

The trace minerals zinc, copper, selenium and manganese are associated with immune system function. Oral supplementation of these trace minerals are not enough since the most important nutritional effect of stress is reduced feed intake. This is where an injectable trace minerals pre-treatment plays a major role to ensure optimal immunity and vaccine response.

There are 3 challenges for stocker production with regards to critical trace minerals:

- There is a huge variation in individual cattle arriving at feedlots / stocker operations, not only in different genetics, breeds but also travelling distances and areas of origin. This also applies to trace mineral status.
- Trace mineral status of cattle plays a role in the immune system of the cattle for disease prevention.
- An optimal trace mineral status of cattle is critical for a rapid vaccine and immune response after arrival at the feedlot.

The Multimin Concept:

Multimin[®]90 is a balanced injectable chelated trace mineral pre-treatment of 60 mg/ml zinc, 10mg/ml manganese, 5 mg/ml selenium and 15 mg/ml copper.

Multimin®90 is indicated in calves at birth, at branding and/weaning. Calves destined for the feedlot can receive pre-treatment with Multimin®90 during pre-conditioning and again during processing after arrival at the feedlot/stocker operation to support immunity, a proper vaccine response and the zinc is critical for normal appetite to encourage better feed intake which is important during the first weeks at the feedlot. Due to the fact that the trace minerals peak in the serum about 8 hours after injection, Multimin®90 rapidly increases the trace mineral status of the cattle.

Multimin[®]90 being an injectable trace mineral treatment, bypasses antagonists in the diet e.g. sulfur from molasses, water and distillers grains.

Multimin is an effective way to manage low / variable feed intake and thus low / variable trace mineral intake esp. during the first 3-4 weeks after arrival in the feedlot/stocker operation. Several university studies have indicated that including Multimin in the normal processing protocol in high stress cattle may reduce incidence of respiratory disease and thus antibiotic use and improved performance (average daily gain and feed: gain). A recent study done at Iowa State University indicated that injecting Multimin®90, reduced transport shrinkage and resulted in better beef quality by improving hot carcass weight as well as increasing the rib eye area and marbling score.

For the complete study data, please visit <u>www.multiminusa.com</u>



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