

BEEF

MULTIMIN[®]

90



SURE
*Trace Mineral Supply
by Timed Injection!*

MULTIMIN[®] 90

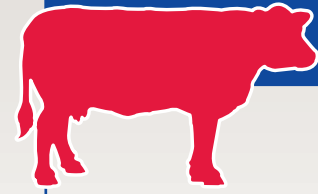
Benefits to Beef Cattle Operations

The following is a list of the benefits you can expect by adding **MULTIMIN[®] 90** trace mineral supplementation to your beef cattle operation:

- 1. RAPID ABSORPTION** = Quick/fast supplementation of the minerals needed for growth, the immune system and for reproduction.
- 2. RAPID STORAGE** = additional trace minerals available from 24 hours following injection.
- 3. BYPASS ANTAGONISTS** in diet (e.g., sulfur from molasses, water and distillers grains).
- 4. EFFECTIVE** way to manage low/variable intake of free choice minerals.



MULTIMIN[®] 90 provides essential trace minerals when and where they're needed most!



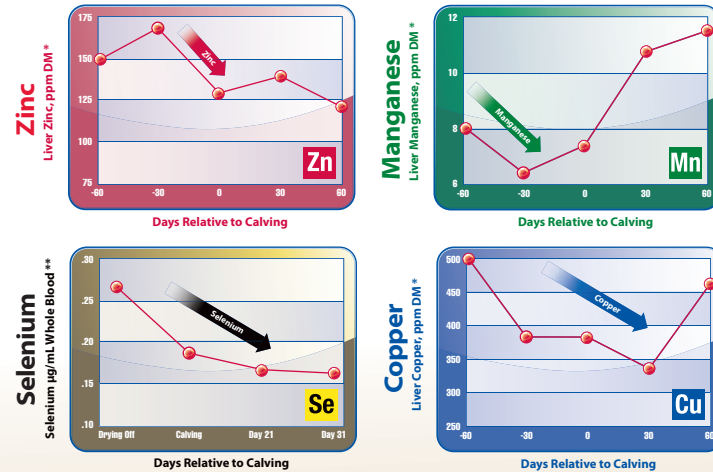
Breeding Females

Calving Robs Beef Cows of Essential Trace Minerals.

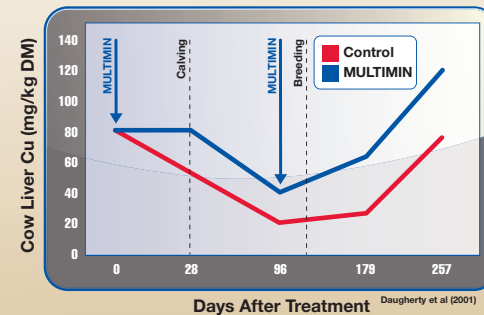
Prior to calving, a large amount of a beef cow's trace minerals are concentrated in her calf. At calving, this store is lost by the cow as well as those minerals in the placenta. As indicated in the charts below, this results in a significant reduction of the cow's trace mineral status:



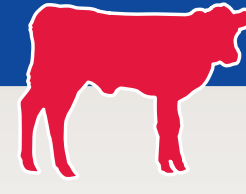
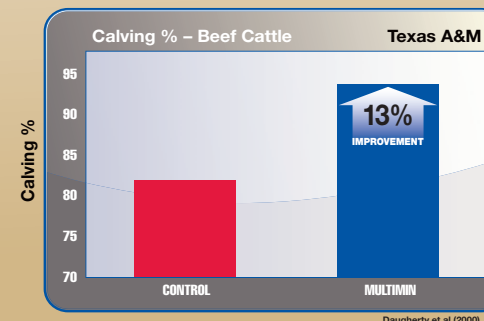
Trace mineral loss in beef cattle following calving:



MULTIMIN[®] contribution to beef cow performance:



Value for the Producer: Improved Calving %



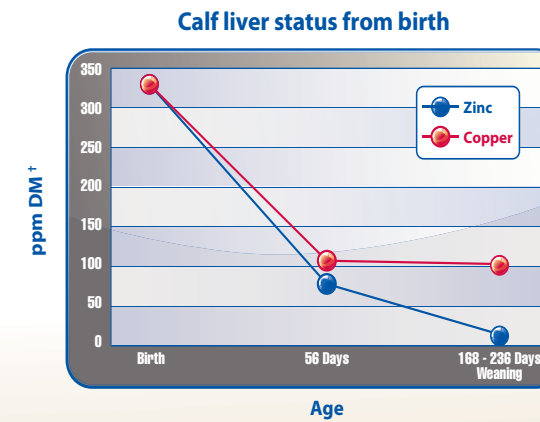
Calves

What Happens to the Calf's Essential Trace Minerals?

Following birth, rapid growth and poor trace mineral content of the mother's milk puts the calf at risk of inadequate trace mineral status from as early as 57 days. The loss of Copper and Zinc are shown in the chart below.



Trace mineral changes from birth to weaning:



Ideal Times to use MULTIMIN[®] 90

- 1st Week of Life
- Branding (60-90 days)
- Prior to Weaning



Bulls

Reproductive Health for Bulls.

Bulls need optimal essential trace mineral levels for top performance in reproduction and health. **MULTIMIN[®] 90** provides the essential trace minerals (Zinc, Manganese, Selenium and Copper) needed for improved reproduction and immunocompetence.

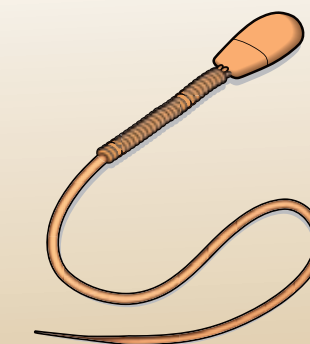


Testicular Development and Maintenance of Sperm Production Tissue in bulls are driven by adequate levels of Manganese and Zinc.



- Manganese**
Required for proper development of the testis
- Zinc**
Required for normal size testis

Sperm Quality of a bull is driven by adequate levels of Copper, Zinc, Manganese and Selenium.



- Copper**
Required for proper motility of sperm and survival of sperm
- Selenium**
Normal Sperm production – low selenium negatively impacts morphology (quality of individual sperm) and sperm motility (linear movement)
- Zinc & Manganese**
Required for proper sperm production

Notes:

HEALTHIER CATTLE

Less Treatment Costs

Our operation has around 330 head of mostly purebred registered Angus and is located in central Nebraska, an area that has low levels of copper, zinc and selenium. We have a good oral mineral supplement program but we wanted to be sure that our cattle are receiving optimum levels of trace minerals. The injectable is a logical choice because it gives us a sure way of getting those essential trace minerals in our cattle at the times they need them the most. We started using **MULTIMIN**[®] about 4 years ago on our calves. It was given at birth and again at weaning. The results were so impressive that we now use **MULTIMIN** on our entire herd.

Adding **MULTIMIN** to our herd health program has helped improve immunity and overall health. Treatment costs are a fraction of what they were before **MULTIMIN**. We're just not seeing pneumonia and other health issues that we were seeing prior to the use of **MULTIMIN**. Our reproduction efficiency has increased, especially with our first calf heifers, and the breed-back time with our older cows has improved. We are attaining higher weaning weights and getting better feed efficiency with improved daily gains. The red rusty look that used to be in some of the hair coats is gone.

MULTIMIN more than pays for itself in the herd health and reproduction improvements that we're seeing, plus treatment costs have decreased with **MULTIMIN**.



Danny Poss

Poss Angus, Scotia, Nebraska

Danny Poss with sons, Nolan and Nate, injecting newborn calf with **MULTIMIN 90**. Nolan and Nate call this "**MULTIMIN**ing" calves.

Notes:

* Tomlinson, D.J., Socha, M. T., DeFrain, J. M. "Role of Trace Minerals in the Immune System." 2008. Penn State Dairy Cattle Nutrition Workshop.

** Hogan, J. S., Smith, K. L., Weiss, W. P., Todhunter, D.A. and Schockey, W. L. "Relationships Among Vitamin E, Selenium, and Bovine Blood Neutrophils." 1990 J Dairy Sci 73:2372-2378.

† Brannum, Jay Christopher. "Impact Of Prenatal Dietary Copper Level On Copper Status." Submitted to the Office of Graduate Studies of Texas A&M University. May 1999.

USE ONLY IN CATTLE
KEEP OUT OF REACH OF CHILDREN
MULTIMIN[®] 90

(AN INJECTABLE CHELATED SUPPLEMENTAL SOURCE OF ZINC, MANGANESE, SELENIUM AND COPPER)

CAUTION:

Federal Law restricts this drug to use by or on the order of a licensed veterinarian.

GUARANTEED ANALYSIS:

Zinc..... 60 mg/mL
Manganese..... 10 mg/mL
Selenium 5 mg/mL
Copper 15 mg/mL

CAUTION:

Slight local reaction may occur for about 30 sec. after injection. A slight swelling may be observed at injection site for a few days after administration. Use standard aseptic procedures during administration of injections. Store Between 15°C and 30°C (59°F and 86°F). Protect from Light.

INGREDIENTS: Zinc oxide, manganese carbonate, copper carbonate, sodium selenite, disodium EDTA, sodium hydroxide, chlorocresol 0.1% (as preservative).

DIRECTIONS: USE ONLY IN CATTLE BY SUBCUTANEOUS OR INTRAMUSCULAR INJECTION.

DOSAGE RECOMMENDATIONS:

CALVES: up to 1 year 1mL/per 100 lbs. bodyweight
CATTLE: From 1-2 years.. 1mL/per 150 lbs. bodyweight
CATTLE: Over 2 years..... 1mL/per 200 lbs. bodyweight

SUPPLEMENTATION PROGRAM:

Bulls..... 3 times per year
Beef Cows..... 4 weeks before breeding
..... 4 weeks before calving
Dairy Cows..... 4 weeks before calving
..... 4 weeks before insemination
..... 4 weeks before dry-off
Calves..... at birth
..... at 3 months and/or weaning
Heifers every 3 months – especially
..... 4 weeks before breeding
Additional..... every 2 months in wet conditions

(Program gives planned dates that can be varied to suit management programs)

Packaged in 100 mL

NDC No. 49920-006-01

& 500 mL size

NDC No. 49920-006-05

TAKE TIME  OBSERVE LABEL DIRECTIONS

R_{REQUIRED}

US PATENT # 7,285,292

Manufactured by:
Nova-Tech, Inc.
Grand Island, NE 68801



MANUFACTURED FOR:
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NORTH AMERICA, INC.
Fort Collins, CO 80525

Get the Facts

www.multimininglobal.com

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