

Unlock True Calf Potential



Use **MULTIMIN[®] 90** It Doesn't Cost... It Pays!

Important Trace Mineral Changes in the Calf

Prior to Birth



The trace mineral status of the calf is determined by the mineral status of the cow, **PRIOR** to the calf being born. It is crucial to have a well-supplemented cow, in order to have a well-supplemented calf being born.

Day Old



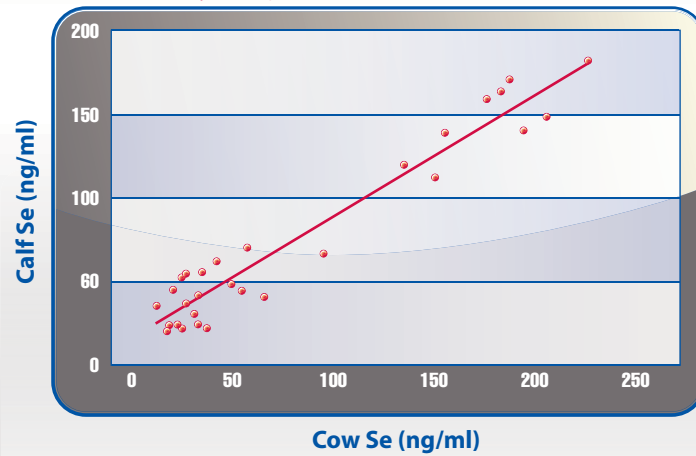
Two Months



Weaning

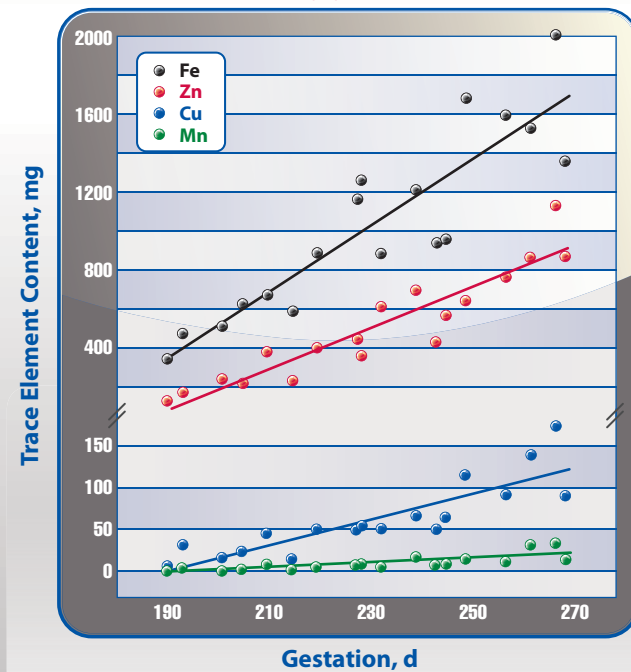


Direct correlation between Cow and young Calf Selenium Status⁴



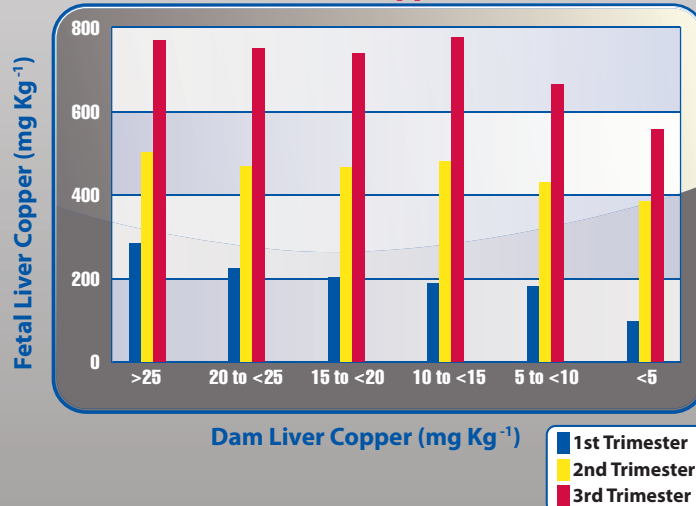
The lower the cow blood Se, the lower the calf blood Se.

Accumulation of minerals in the fetus during gestation¹



The lower the cow status, the lower the calf status.

Direct correlation between Cow and unborn Calf Copper Status²



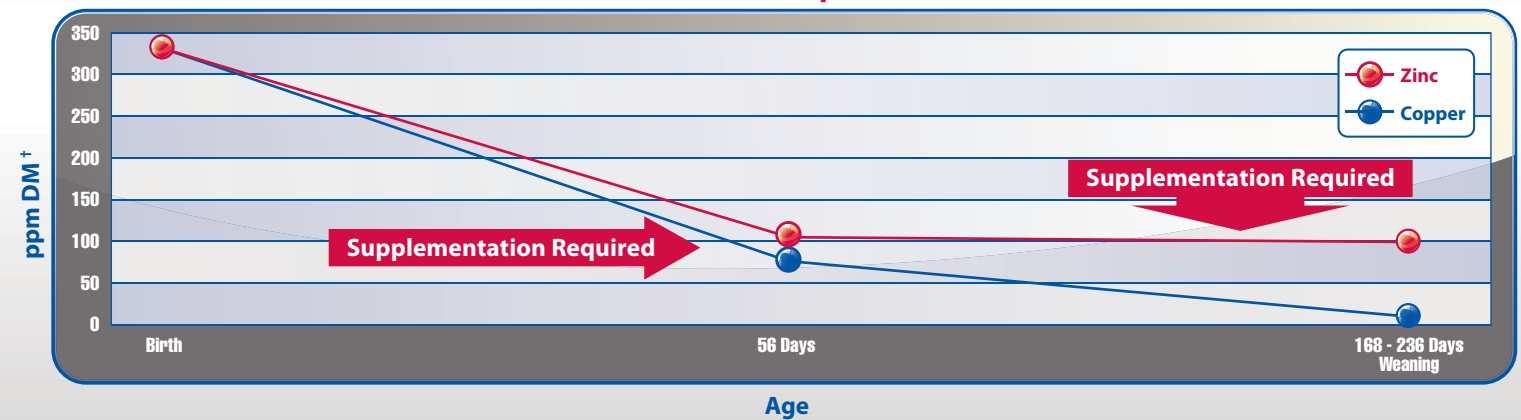
Direct correlation between Heifers and their Calves Manganese Status³

Item	Supplemental Mn, mg/kg		SEM	P
	0	50		
Whole blood Mn, ng/mL				
Calves ¹				
Birth ²	24.04	35.03	2.45	0.02
Cows	20.17	22.14	2.01	0.51

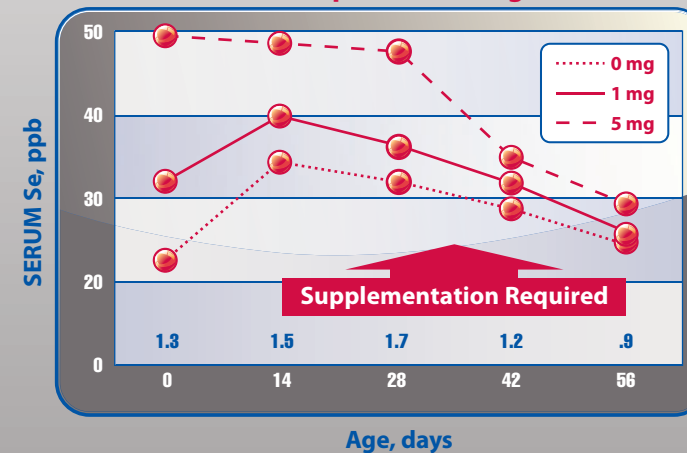
¹ Time x treatment effect (P < 0.01)
² Samples taken within 24 h of birth

The lower the cow supplementation, the lower the calf status.

The calf rapidly depletes the trace minerals it was born with, due to its rapid growth rate and the fact that the cow's milk is a poor source of trace minerals⁶



Calf serum selenium concentration grouped by level of selenium fed to the cow prior to calving⁵



MULTIMIN[®] Supplementation of calves:

Beef Calves

Critical Risk Period	MULTIMIN [®] Dosage
Birth	1ml/100lbs bodyweight
2-3 Months of Age	1ml/100lbs bodyweight
Prior to or at Weaning	1ml/100lbs bodyweight
Heifers Pre-breeding	1ml/150lbs bodyweight

Dairy Calves

Critical Risk Period	MULTIMIN [®] Dosage
Birth	1ml/100lbs bodyweight
14 Days of Age	1ml/100lbs bodyweight
Prior to or at Weaning	1ml/100lbs bodyweight
Growing Heifers	Depends on age (see label)
Heifers Pre-breeding	1ml/150lbs bodyweight

VERY IMPORTANT: ADEQUATELY SUPPLEMENT COWS PRIOR TO CALVING WITH MULTIMIN[®] 90

HEALTHIER CATTLE

Less Treatment Costs



Danny Poss with his two sons, Nolan and Nate, injecting a newborn calf with MULTIMIN[®] 90. Nolan and Nate call this MULTIMINING calves.

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

MULTIMIN[®] Doesn't Cost... It Pays!



Marks Farm is a 4,000 head dairy located in Lowville, NY. As co-owner I have charge of the calf and heifer operations. In the past we used injectable selenium and vitamin E on all of our calves, but during the transition period our older calves just fell apart from a performance and animal health standpoint. We wanted to see if MULTIMIN[®] would make a difference.

So in the summer of 2009, we ran a head-to-head performance trial on 1,200 calves—one half received injectable selenium and vitamin E and the other half MULTIMIN. The difference between the MULTIMIN calves and those who received the injectable selenium and vitamin E product was night and day. The results of the trial showed us the true benefits and superiority of using MULTIMIN. Every calf on the farm is now on MULTIMIN.

With the dairy market like it's been, every dairy is looking for ways to improve profits and cut expenses. During one of our farm management meetings, it was suggested that maybe MULTIMIN should be cut to save money. As the one responsible for the calf and heifer operations, my answer was that MULTIMIN would be the last product to go. MULTIMIN out of the program wouldn't save us money—it would cost us money. MULTIMIN has helped us improve our calf and heifer program and it's here to stay!

Jackie Peck

Marks Farm, Lowville, NY

¹House, W.A., Bell, A.W., "Mineral Accretion in the Fetus and Adnexa During Late Gestation in Holstein Cows." 1993 J Dairy Sci 76:2999-3010.
²Gooneratne, S.R., Christensen, D.A., "A Survey of Maternal Copper Status and Fetal Tissue Copper Concentrations in Saskatchewan Bovine." 1989 Can. J. Anim. Sci. 69:141-150.
³Hansen, S.L., Spears, J.W., Lloyd, K.E., Whinnant, C.S., "Feeding a Low Manganese Diet to Heifers During Gestation Impairs Fetal Growth and Development." 2006 J. Dairy Sci. 89:4305-4311.
⁴Maas, John, Hoar, B.R., Myers, D.M., Tindall, Justin, Puschner, Birgit, "Vitamin E and Selenium Concentrations in Month-Old Beef Calves." 2008 J. Vet. Diagn. Invest. 20:86-89.
⁵Weiss, W.F., Colenbrander, W.F., Cunningham, M.D., "Maternal Transfer and Retention of Supplemental Selenium in Neonatal Calves." 1984 J Dairy Sci. 67:416-420.
⁶Branum, 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^x REQUIRED

US PATENT # 7,285,292

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



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

Get the Facts
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