

BOVitalize™

Se Cu Zn A E

DETAILER

recharge your herd.



oral nutritional supplement for beef and dairy cattle



features + benefits

EASY TO ADMINISTER

LOW VOLUME DOSE - 5 ML / 220 LBS

ONE LESS NEEDLE, A FEW LESS WORRIES —

- Lower risk of any unintended interference that may negatively impact the effectiveness of injectable products being administered in the same area
- Eliminates risk of injection site reactions such as redness, swelling, and/or lesions.



SIZE	ITEM #
1 Liter	1BOV100
4 Liter	1BOV400



LEARN MORE AT
WWW.BIMEDAUS.COM/BOVITALIZE

INTRODUCTION TO MINERAL AND VITAMIN SUPPLEMENTATION

- Trace mineral and vitamin deficiencies are recognized to be of great importance in beef cattle of all ages.
- It has been shown that deficiencies lead to impairment of immunity and both reproductive + growth performance
- Trace minerals and vitamins are particularly important during key times in the lives of cattle such as breeding, fetal development, calving, weaning and growth.

RATIONALE FOR SUPPLEMENTATION

- Strategic supplementation allows producers to ensure their cattle have adequate levels of trace minerals and vitamins—that they may not be receiving otherwise through their daily diet—in order to correct nutritional deficiencies and prepare their cattle to perform optimally in times of stress
- Supplementation provides improved immunity, growth and reproductive performance
- Optimal nutrition of gestating cows will not only support health and production of the cow but also ensure her calf gets off to a good start

ROLES CRITICAL OF MICRONUTRIENTS AT KEY LIFE STAGES



PREGNANT COWS

Maintain Pregnancy
Calf Development



COWS + CALVES

Support Growth/Immune Function
Reproductive Performance



WEANED CALVES

Optimize Vaccine Immunity
Prevent Stress-Related Disease



STOCKER + FEEDER

Boost On-Arrival Immunity
Vaccine Response

PROS AND CONS OF DIFFERENT ROUTES OF ADMINISTRATION

Supplements can be provided through several different routes of administration, each has its own advantages and disadvantages:



TOTAL MIXED RATION (TMR)

- ⊕ Can be mixed in with an operation's existing ration
- ⊖ Animals must be confined, requires mixing equipment and feeding systems to ensure supplements are uniformly mixed



FREE CHOICE MINERAL

- ⊕ Provides flexibility and can be used in all systems
- ⊖ Hard to know for certain if each animal receives the proper amount of supplement, palatability issues



ORAL PRODUCTS

- ⊕ **No injection required**
Cost compared to injections
Deliver measured amounts to each animal
- ⊖ Requires animal restraint and specific equipment to administer



INJECTABLE PRODUCTS

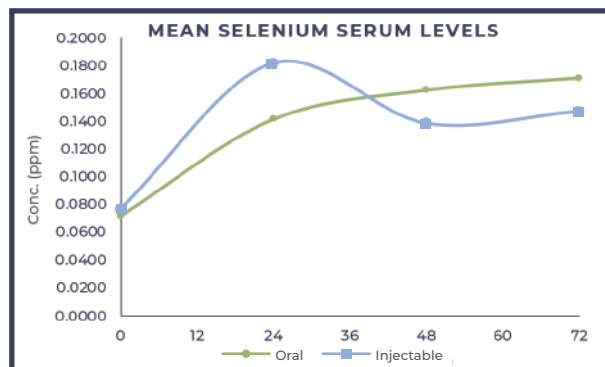
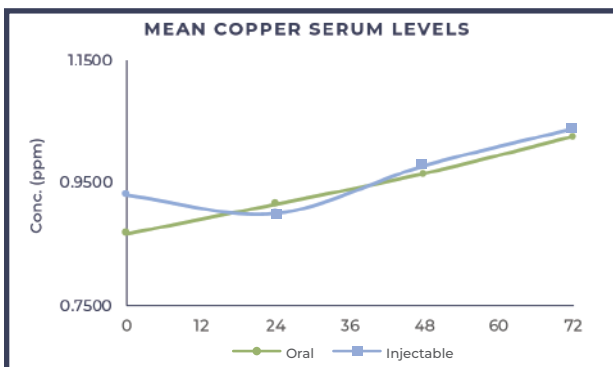
- ⊕ Deliver measured amounts to each animal
- ⊖ Cost, requires restraint of animals, injection site reactions, potential interference with other products administered at the same time

THE ROLE OF KEY NUTRIENTS IN CATTLE

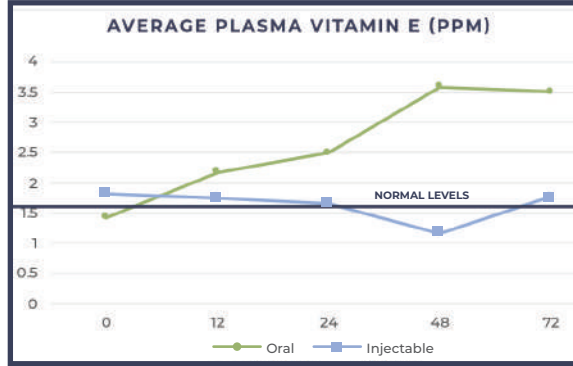
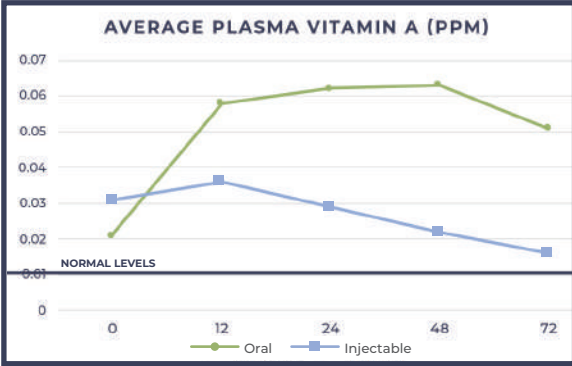
SELENIUM		<p>TARGET</p> <p>REPRODUCTION + FERTILITY IMMUNE FUNCTION GROWTH + DEVELOPMENT</p>	<p>DEFICIENCY</p> <p>REDUCED GROWTH POOR REPRODUCTIVE PERFORMANCE CARDIAC FAILURE</p>
COPPER		<p>TARGET</p> <p>REPRODUCTION + FERTILITY DISEASE RESISTANCE HAIR COLOR</p>	<p>DEFICIENCY</p> <p>REDUCED FERTILITY CARDIAC FAILURE WEAK BONES</p>
ZINC		<p>TARGET</p> <p>REPRODUCTION + FERTILITY HEALTHY FEET + HOOVES HEALTHY SKIN + COAT</p>	<p>DEFICIENCY</p> <p>HAIR LOSS SKIN ABNORMALITIES HOOF ABNORMALITIES</p>
VITAMIN A		<p>TARGET</p> <p>REPRODUCTIVE PERFORMANCE IMMUNE FUNCTION VISION</p>	<p>DEFICIENCY</p> <p>POOR REPRODUCTIVE PERFORMANCE INCREASED INFECTIONS</p>
VITAMIN E		<p>TARGET</p> <p>REPRODUCTIVE PERFORMANCE IMMUNE FUNCTION GROWTH</p>	<p>DEFICIENCY</p> <p>REDUCED GROWTH POOR REPRODUCTIVE PERFORMANCE CARDIAC FAILURE + INFECTIONS</p>

COMPARATIVE PHARMACOKINETICS BETWEEN ORAL AND INJECTABLE SUPPLEMENTATION

Animals: 20 head – 660 pound beef cattle replacement heifers
 Treatment A (n=10): *BOV Oral (5 mL/220 pounds)
 Treatment B (n=10): Multimin® 90 Injection (1 mL/100 pounds)
 Plasma Collected at 0, 24, 48 and 72-hour intervals



*MultiMin® 90 is a licensed product of Axiota Animal Health, Fort Collins, CO.
 *BOV — Studies shown were conducted on Bovi-MV™, the Canadian equivalent of BOVitalize (US).



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Results and Conclusion:

On arrival: Calves were deficient in Selenium and Vitamin E, marginal in Copper and Vit A
 Calves treated with *BOV Oral responded by increased Copper, Selenium, Vitamin A and E
 Calves treated with MultiMin® 90 Injection responded by increased Selenium and Copper
 No difference was demonstrated between Zinc levels through 72 hours with *BOV Oral and MultiMin 90 Injection

COMPARISON OF BOVITALIZE TO OTHER SUPPLEMENTS IN DIFFERENT CLASSES OF CATTLE

WEANED 500 POUND CALF



PRODUCT	DISTRIBUTOR	ROUTE OF ADMINISTRATION	DOSE	SELENIUM (mg/dose)	COPPER (mg/dose)	ZINC (mg/dose)	MANGANESE (mg/dose)	VITAMIN A (IU/dose)	VITAMIN E (IU/dose)
BOVitalize	Bimeda	Oral	11.4 mLs	26.7	225.7	188.1	0	198,838.8	763.8
MultiMin	Multimin	Injection	5 mLs	25	75	300	50	0	0
ProFusion	Zinpro	Oral	25 mLs	1	162.5	475	250	0	100

1,000 POUND YEARLING



PRODUCT	DISTRIBUTOR	ROUTE OF ADMINISTRATION	DOSE	SELENIUM (mg/dose)	COPPER (mg/dose)	ZINC (mg/dose)	MANGANESE (mg/dose)	VITAMIN A (IU/dose)	VITAMIN E (IU/dose)
BOVitalize	Bimeda	Oral	22.8 mLs	53.4	451.4	376.2	0	397,677.6	1,527.6
MultiMin	Multimin	Injection	6.7 mLs	33.5	100.5	402	67	0	0
ProFusion	Zinpro	Oral	30 mLs	1.2	195	570	300	0	120

2+ YEAR OLD COW



PRODUCT	DISTRIBUTOR	ROUTE OF ADMINISTRATION	DOSE	SELENIUM (mg/dose)	COPPER (mg/dose)	ZINC (mg/dose)	MANGANESE (mg/dose)	VITAMIN A (IU/dose)	VITAMIN E (IU/dose)
BOVitalize	Bimeda	Oral	31.9 mLs	74.6	631.6	526.4	0	556,399.8	2,137.3
MultiMin	Multimin	Injection	7 mLs	35	105	420	70	0	0
ProFusion	Zinpro	Oral	30 mLs	1.2	195	570	300	0	120

*ProFusion® is a registered trademark of ZINPRO, Eden Prairie, MN.

