

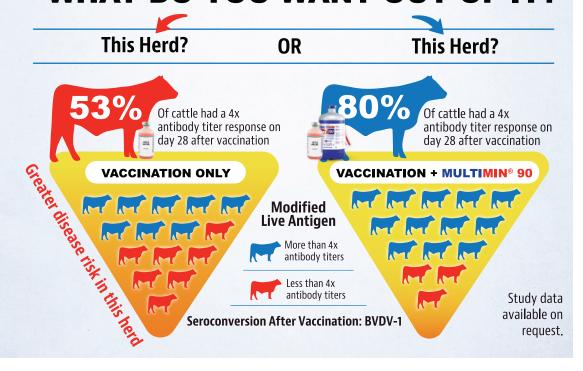
## **CATTLE DO ALL THE WORK** FOR A VACCINE TO PROTECT Lymph node Vaccine Antigen Memory cells Killer T-cells Killer T-cells Memory cells **Antibodies** Helper T-cells Naïve B cell Memory cells References available on request.



2

UNIVERSITY STUDIES SHOWED CALVES
TREATED WITH MULTIMIN® 90 AT THE SAME
TIME AS VACCINES HAD MORE OF THE
POPULATION RESPOND TO THE VACCINE

# You Are Buying Vaccines. WHAT DO YOU WANT OUT OF IT?



UNIVERSITY STUDIES HAVE SHOWN WHEN CALVES ARE INFECTED WITH VIRUSES THAT THEY WERE VACCINATED AGAINST, THE CALVES THAT RECEIVED MULTIMIN® 90, WITH THE VACCINE HAD:

- *⊗* Enhanced immune protection
- *⊗* Less severe disease
- **ఆ** Less depression of platelets
- Greater average daily gain following challenge





 $\mathbb{R}$  required





# Q&A

#### MULTIMIN<sup>®</sup> 90 co-use with vaccines

Can you give **MULTIMIN**° **90** at the same time as vaccines?

YES

Did you know that modified live vaccines impact the trace mineral status of recently vaccinated animals?

Study data indicated that an injection of MULTIMIN® 90 at the same time as vaccination maintains/improves animal's trace mineral status

What classes of vaccines has **MULTIMIN**° showed an improved immune response to in research trials?

Killed vaccines

Attenuatedlive bacterins

Intra-nasal vaccines

Modified live respiratory and reproductive virus vaccines

Inactivated multivalent scour vaccine

#### **KEEP OUT OF REACH OF CHILDREN**

### MULTIMIN® 90

#### An injectable aqueous 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.

#### **ACTIVE SUBSTANCES PER ML:**

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

#### **OTHER SUBSTANCES:**

Chlorocresol 0.1% w/v (as preservative).

#### DOSAGE RECOMMENDATIONS:

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

#### PRECAUTION:

Selenium and copper are toxic if administered in excess.

Always follow recommended label dose. Do not overdose

It is recommended that accurate body weight is determined prior to treatment.

Do not use concurrently with other injectable selenium and copper products.

Do not use concurrently with selenium or copper boluses.

Do not use in emaciated cattle with a BCS of 1 in dairy or 1-3 in beef.

Consult your veterinarian.

#### **CAUTION:**

Slight local reaction may occur for about 30 seconds 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 to reduce the risk of injection site abscesses or lesions.

#### WITHDRAWAL PERIOD:

Meat 14 days. Milk zero withdrawal.

	DOSAGE TABLE				
ANIMAL WEIGHT (lbs)	CALVES UP TO 1 YEAR	CATTLE 1 - 2 YEARS	CATTLE > 2 YEARS		
	1 ml/100 lb BW	1 ml/150 lb BW	1 ml/200 lb BW		
50	0.5 ml	-	-		
100	1 ml	-	-		
150	1.5 ml	-	-		
200	2 ml	-	-		
300	3 ml	-	-		
400	4 ml	-	-		
500	5 ml	-	-		
600	6 ml	-	-		
700	7 ml	-	-		
800	-	5.3 ml	-		
900	-	6 ml	-		
1000	-	6.6 ml	5 ml		
1100	-	-	5.5 ml		
1200	-	-	6 ml		
1300	-	-	6.5 ml		
1400	-	-	7 ml		

#### **DIRECTIONS:**

This product is only for use in cattle.

MULTIMIN® 90 is to be given subcutaneously (under the skin) ONLY.

It is recommended to administer the product in accordance with Beef Quality Assurance (BQA) guidelines. Minimum distance between injection sites for the MULTIMIN® 90 product and other injection sites should be at least 4 inches.

Inject under the loose skin of the middle of the side of the neck. Max volume per injection site is 7 ml.

Subcutaneous injection in middle of side of neck.



(59°F and 86°F).

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 at dry-off		
CALVES	at birth at 3 months and/or weaning		
HEIFERS	every 3 months – especially 4 weeks before breeding		

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



MANUFACTURED FOR: **MULTIMIN** NORTH AMERICA, INC. Fort Collins, CO 80528



Packaged in 100 mL & 500 mL size NDC No. 49920-006-01 NDC No. 49920-006-05



## CALL YOUR MULTIMIN® USA REPRESENTATIVE NOW

Todd Alford (FL, GA) 706.207.9454 todd@multiminusa.com

Cortney Blasingame (AZ, CA, West NV) 559.906.2618 cblasingame@multiminusa.com

Joe Brown (IL, MO) 417.848.5755 jbrown@multiminusa.com

Marnie Caldwell (NC, SC, VA, WV) 540.460.4707 marnie@multiminusa.com

Thomas Carper (IN, KY, MI, OH) 540.336.2737 tcarper@multiminusa.com

Sheri Chapman (AL, MS, TN) 334.352.5062 sheri@multiminusa.com

Chip Gasser (ID, East NV, UT) 208.569.1099 cgasser@multiminusa.com

Jill Ginn (West TX, NM) 806.570.6185 jill@multiminusa.com

Brian Harberd (WA, OR) 208.316.3168 bharberd@multiminusa.com

Brad Shumaker (AR, LA) 901.463.0059 brad@multiminusa.com

Corey Weber (Tulare County, CA) 559.210.4268 corey@multiminusa.com

Ashley Hughes (East TX) 772.342.4153 ashley@multiminusa.com

Hannah Garrett (NE) 970.520.5172 hannah@multiminusa.com

David Link (CO, WY, MT) 303.588.2986 davidlink@multiminusa.com

Al Schoenfeld (ND, SD) 605.690.7070 aschoenfeld@multiminusa.com

Adrienne Bethel (East KS, East OK) 918.638.9865 adrienne@multiminusa.com

Tim Thul (IA, MN) 952.500.0877 tthul@msbiotec.com

Ddee Haynes (West KS, West OK) 580.772.4053 ddee@multiminusa.com

Erin Wilkens (MI Pen, WI) 920.207.7502 erin@multiminusa.com

Stacey Peterson (CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT) 570.881.6015 stacey@multiminusa.com