

# ENHANCE CALF IMMUNITY WITH MULTIMIN®



## Supplementing calves with injectable trace elements

Most farmers do their best to make sure the herd has been supplemented before calving and assume this will pass on to the calf. However, the cow's own high requirements and variable intake of colostrum can mean calves enter the calf shed with less trace elements than expected, at exactly the time they need them most for growth and immunity. A severe deficiency will reduce weight gains, but even a minor shortfall will result in reduced immunity.

## THE ROLE OF TRACE ELEMENTS IN CALF IMMUNITY & SURVIVAL

The majority of death and disease in calves occurs in the first few weeks of life, so supplementation to prevent this needs to be rapidly absorbed and given as early as possible.

Both international and local research suggests that supplementing calves in early life with MULTIMIN® can enhance immunity and increase survival rates.

### Supported by local research<sup>1,2</sup>



### Results

In MULTIMIN® treated calves, sickness and death rates due to scours, navel infections or other diseases were halved within 3 days of injection.

**↓ 58%**

**REDUCTION IN DEATHS**

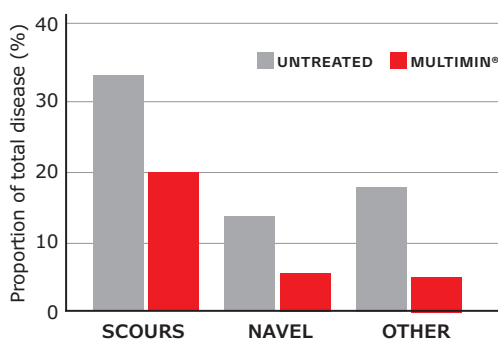
**↓ 52%**

**REDUCTION IN DISEASE**

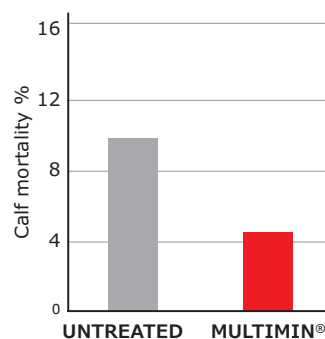
**» 200%**

**RETURN ON INVESTMENT**

**Reduction in disease from 3-35 days of age after MULTIMIN® treatment in first 24 hours**



**Mortality rates day 3-35 with and without MULTIMIN® treatment in first 24 hours**



### Return on investment

If a single AB heifer calf is saved for every 100 calves treated, double the investment is returned (assuming \$200 to replace a 4 day old calf).



**Injectable source of zinc, copper, selenium and manganese**



**Proven on New Zealand farms**



**Benefits even fully supplemented herds**



**Takes immunity and fertility to the next level**

# GET YOUR HERD PERFORMANCE READY



**ASK YOUR VET**  
[PERFORMANCEREADY.CO.NZ](http://PERFORMANCEREADY.CO.NZ)

### When and how to use MULTIMIN® in calves

In the trial, farmers injected calves on the first day they arrived in the shed, which easily fitted into their daily routine.

- Administered as a subcutaneous injection.
- Nil meat and milk withholding periods.



**CALVES**

**UP TO 1 YEAR OLD:**  
1 ml/50 kg

Use at birth and at weaning

Registered pursuant to the ACVM Act 1997, No. A009374. 1. Bates, A.J., Wells, M., Laven, R.A., Simpson, M. (2018). Effect of an injectable trace mineral supplement containing selenium, copper, zinc, manganese and chromium on health, and growth of dairy calves on four pastoral dairy farms in New Zealand. June 2018. 2. Bates, A., Wells, M., Laven, R.A., Simpson, M. (2019) Reduction in morbidity and mortality of dairy calves from an injectable trace mineral supplement. Veterinary Record Published Online First: 25 April 2019. doi: 10.1136/vr.105082. 3. D. Hawkins. (2007) The Effect of Injectable Trace Elements (MULTIMIN®) on Health & Reproduction Parameters in NZ Dairy Herds. DCV Newsletter March 2007. 4. Bates, A.J., Wells, M., Laven, R.A. Effect on periparturient diseases from pre-calving injection of trace mineral supplement in dairy herds. (IN PRESS). MULTIMIN® is a registered trademark of Virbac New Zealand Limited. Copyright © 2022 Virbac New Zealand Limited. All rights reserved. Virbac New Zealand Limited, 26-30 Maui Street, Pukete, Hamilton 3200. 5PR0415. 05/22.



## Supplementing herds with injectable trace elements

Most farmers have well-managed oral supplementation programmes which are effective for the majority of the year. However, there are times when the requirements for trace elements rapidly increase, often coinciding with reduced feed intake. When this occurs, even well-supplemented herds can dip into slight deficiency – often leading to a higher level of disease, and sometimes short-term drops in fertility and production. Injectable supplementation, such as MULTIMIN®, provides a rapid, targeted and sustained increase in trace elements prior to high demand periods – such as calving and mating.

## THE ROLE OF TRACE ELEMENTS IN COW FERTILITY

The reproductive system uses many trace elements, with some of the roles only recently being discovered. Local research suggests that treatment with MULTIMIN® prior to mating has positive outcomes on reproductive performance in the herd.

### Supported by local research<sup>3</sup>



2,168 COWS  
6 HERDS



5 ml DOSE  
MULTIMIN®



4 WEEKS PRIOR  
TO MATING

All cows had sufficient trace element levels prior to treatment and continued to use their usual oral supplementation.

### Results

- 3.3% lower empty rate in the MULTIMIN® group.
- Halving of pregnancy losses in the MULTIMIN® group.
- On average cows conceived 3.4 days earlier.

**▲ 3.3%**

HIGHER FINAL IN CALF RATE

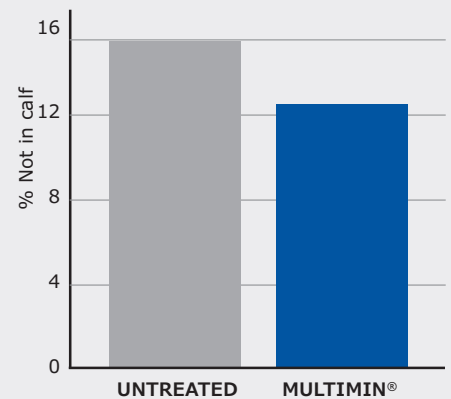
**» 3.4 DAYS**

EARLIER IN CALF

**» \$5**

RETURN ON INVESTMENT

Empty rates in untreated vs MULTIMIN® cows



### Return on investment

- Using DairyNZ InCalf calculations at least \$5.00 for every dollar spent. Assumes an average \$5.50 payout.

## THE ROLE OF TRACE ELEMENTS IN COW IMMUNITY

Research suggests that livestock experience greater white blood cell function after treatment with MULTIMIN®, contributing to improved immune function and a subsequent reduction in disease.

### Supported by local research<sup>4</sup>



1,700 COWS  
6 HERDS



5 ml DOSE  
MULTIMIN®



14-28 DAYS  
BEFORE CALVING

All herds were fully supplemented with oral trace element mixes, and copper and selenium levels were within normal reference ranges on the day of treatment.

### Results

- Halving of clinical mastitis in the first month after calving.
- 25% reduction in subclinical mastitis.

**▼ 52%**

REDUCTION IN  
CLINICAL MASTITIS

**▼ 25%**

REDUCTION IN  
SUB-CLINICAL MASTITIS

**» \$4**

RETURN ON INVESTMENT

### Return on investment

- Approximately \$4.00 for every dollar spent. Based on DairyNZ SmartSAMM figures for mastitis costs at \$5.50 average payout.
- Also intangible benefits, lower antibiotic use, less time spent handling sick mobs.

### When and how to use MULTIMIN® in adult cattle

- Administered as a subcutaneous injection
- Nil meat and milk withholding periods.



**ADULT CATTLE**

#### 1-2 YEARS OLD:

1 ml/75 kg

Use 4 weeks prior to mating & calving

#### OVER 2 YEARS OLD:

1 ml/100 kg

Use 4 weeks prior to mating & calving

Use in bulls 12 weeks before joining the herd