

# ZEROMEC™



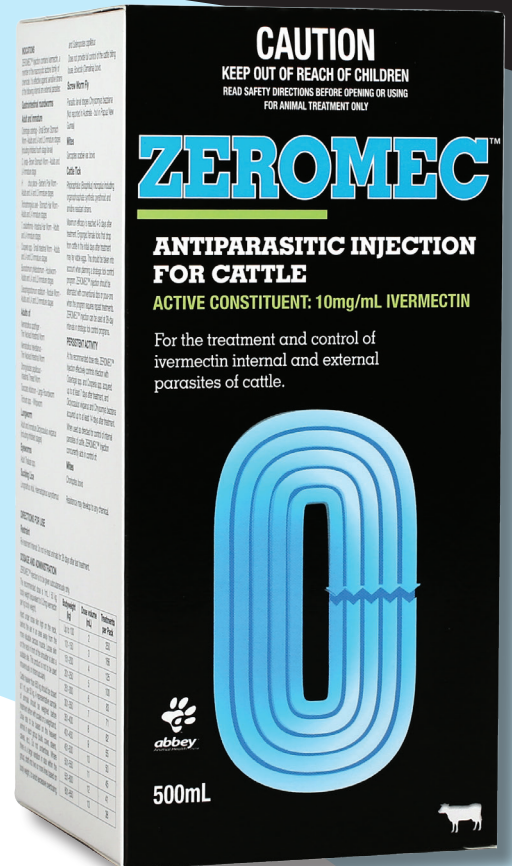
## ANTIPARASITIC INJECTION FOR CATTLE

Active Constituent: 10mg/mL Ivermectin

# ZERO out worms in your herd

For the treatment and control of ivermectin sensitive internal and external parasites of cattle.

- **Broad spectrum control of internal and external parasites**
- **Low volume injection**
- **Persistent protection against reinfection of important worm species**
- **Wide safety margin**



	ZEROMEC™ Injection	IVOMEC® Injection
<b>ACTIVE CONSTITUENT</b>	10mg/mL Ivermectin	10mg/mL Ivermectin
<b>SPECIES</b>	Cattle	Cattle
<b>DOSE RATE</b>	1mL/50kg	1mL/50kg
<b>WITHHOLDING PERIODS</b>		
<b>Meat</b>	28 days	28 days
<b>Milk</b>	28 days	28 days
<b>ESI</b>	42 days	42 days
<b>ROUTE OF ADMINISTRATION</b>	SC Injection	SC Injection



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IVOMEC® is a registered trademark of Boehringer Ingelheim Vetmedica GmbH

### ACTIVE CONSTITUENT: 10mg/mL Ivermectin

For the treatment and control of ivermectin sensitive internal and external parasites of cattle.

#### INDICATIONS

ZEROME<sup>TM</sup> Injection contains Ivermectin, a member of the macrocyclic lactone family of chemicals. It is effective against sensitive strains of the following internal and external parasites:

#### Gastrointestinal Roundworms

##### Adult and Immature

*Ostertagia ostertagi* - Small Brown Stomach Worm - Adults and L<sub>4</sub> and L<sub>3</sub> immature stages (including inhibited fourth stage larvae)

*O. lyrata* - Brown Stomach Worm - Adults and L<sub>4</sub> immature stage

*Haemonchus placei* - Barber's Pole Worm - Adults and L<sub>4</sub> and L<sub>3</sub> immature stages

*Trichostrongylus axei* - Stomach Hair Worm - Adults and L<sub>4</sub> immature stages

*T. colubriformis* - Intestinal Hair Worm - Adults and L<sub>4</sub> immature stages

*Cooperia* spp. - Small Intestinal Worm - Adults and L<sub>4</sub> and L<sub>3</sub> immature stages

*Bunostomum phlebotomum* - Hookworm - Adults and L<sub>4</sub> and L<sub>3</sub> immature stages

*Oesophagostomum radiatum* - Nodule Worm - Adults and L<sub>4</sub> and L<sub>3</sub> immature stages

##### Adults of

*Nematodirus spathiger* - Thin Necked Intestinal Worm

*Nematodirus helvetianus* - Thin Necked Intestinal Worm

*Strongyloides papillosus* - Intestinal Thread Worm

*Toxocara vitulorum* - Large Roundworm

*Trichuris* spp. - Whipworm

##### Lungworm

Adult and immature *Dictyocaulus viviparus* (including inhibited stages)

##### Eyeworms

Adult *Thelazia* spp.

##### Sucking Lice

*Linognathus vituli*, *Haematopinus eurysternus* and *Solenopotes capillatus*

Does not provide full control of the cattle biting louse, *Bovicola (Damalinia) bovis*.

##### Screw Worm Fly

Parasitic larval stages *Chrysomya bezziana* (Not reported in Australia - but in Papua New Guinea)

##### Mites

*Sarcoptes scabiei* var. *bovis*

##### Cattle Tick

*Rhipicephalus (Boophilus) microplus* including organophosphate synthetic pyrethroid and amidine resistant strains.

Maximum efficacy is reached 4-5 days after treatment. Engorged female ticks that drop from cattle in the initial days after treatment may lay viable eggs. This should be taken into account when planning a strategic tick control program. ZEROME<sup>TM</sup> Injection should be alternated with conventional dips or pour-ons when the program requires repeat treatments. ZEROME<sup>TM</sup> Injection can be used at 28-day intervals in strategic tick control programs.

#### PERSISTENT ACTIVITY

At the recommended dose rate, ZEROME<sup>TM</sup> Injection effectively controls infection with *Ostertagia* spp. and *Cooperia* spp. acquired up to at least 7 days after treatment, and *Dictyocaulus viviparus* and *Chrysomya bezziana* acquired up to at least 14 days after treatment. When used as directed for control of internal parasites of cattle, ZEROME<sup>TM</sup> Injection concurrently aids in control of:

##### Mites

*Chorioptes bovis*

Resistance may develop to any chemical.

#### DIRECTIONS FOR USE

##### Restraint

Re-treatment Interval: Do not re-treat animals for 28 days after last treatment.

#### DOSAGE AND ADMINISTRATION

ZEROME<sup>TM</sup> injection is to be given subcutaneously only. The recommended dose is 1mL / 50 kg body weight (equivalent to 0.2mg ivermectin per kg body weight).

Inject under loose skin high on the neck, behind the ear in an area away from the more valuable carcass muscle. Loose skin on the neck in front of the shoulder is also a suitable site. This product is not to be used intravenously or intramuscularly.

Bodyweight (kg)	Dose volume (mL)	Treatments per Pack
Up to 100	2	250
101-150	3	166
151-200	4	125
201-250	5	100
251-300	6	83
301-350	7	71
351-400	8	62
401-450	9	55
451-500	10	50
501-550	11	45
551-600	12	41
601-650	13	38

Cattle heavier than 650 kg should be dosed at 1 mL per 50 kg. A representative sample of animals should be weighed before treatment either with scales or a weighband. Dose rate to be based on the heaviest animal in each group (bulls, cows, steers, calves, etc.). Do not underdose. Where there is a large variation in size within the group, draft into two or more lines based on body weight, to avoid excessive overdosing.

#### General Directions

##### INTRODUCTION

ZEROME<sup>TM</sup> Injection is an injectable parasiticide for cattle. One low-volume dose effectively kills internal and external parasites that impair the health and productivity of cattle. The convenience and broad-spectrum efficacy of ZEROME<sup>TM</sup> Injection make it an ideal product for effective parasite control.

#### PRODUCT DESCRIPTION

ZEROME<sup>TM</sup> Injection is a ready-to-use, sterile solution of ivermectin. Ivermectin is derived from the avermectins, a family of potent broad-spectrum antiparasitic agents which are isolated from fermentation of the naturally occurring soil-organism *Streptomyces avermitilis*.

ZEROME<sup>TM</sup> Injection is formulated to deliver the recommended dosage level of 0.2mg ivermectin per kg body weight when given subcutaneously at the rate of 1mL/50kg body weight.

#### MODES OF ACTION

Ivermectin is a member of the macrocyclic lactone class of endectocides which have a unique mode of action. Compounds of the class bind selectively and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve and muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarisation of the nerve or muscle cell, resulting in paralysis and death of the parasite. Compounds of this class may also interact with other ligand-gated chloride channels, such as those gated by the neurotransmitter gamma-aminobutyric acid (GABA).

The margin of safety for compounds of this class is attributable to the fact that mammals do not have glutamate-gated chloride channels, the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels and they do not readily cross the blood-brain barrier.

#### NOTES TO USERS

Transitory discomfort has been observed in some cattle following subcutaneous administration. Soft tissue swelling at the injection site has also been observed. These reactions have disappeared without treatment.

#### PRODUCT ADVANTAGES

##### Low-volume injection

- The low-volume dosage level of ZEROME<sup>TM</sup> Injection makes it convenient for use with most syringes or automatic injectors. ZEROME<sup>TM</sup> Injection reduces the need for separate drenching, dipping and spraying operations common in the past.

##### Broad spectrum

- ZEROME<sup>TM</sup> Injection provides broad-spectrum efficacy against roundworms, lungworm, eyeworm, sucking lice, mites and cattle tick.

##### Safety

- Studies have demonstrated a wide margin of safety. Pregnant and breeding cattle may be treated provided normal care is taken in handling.

#### WITHHOLDING PERIODS

**MEAT: DO NOT USE less than 28 days before slaughter for human consumption.**

**MILK: DO NOT USE in cows within 28 days prior to calving where milk may be used or processed for human consumption.**

#### TRADE ADVICE

**EXPORT SLAUGHTER INTERVAL (ESI): DO NOT USE less than 42 days before slaughter for export. The ESI on this label was correct at the time of label approval. Before using this product, confirm the current ESI from Abbey Animal Health Pty Ltd on 02 8088 0720 or the APVMA website ([www.apvma.gov.au/residues](http://www.apvma.gov.au/residues)).**

#### SAFETY DIRECTIONS

Poisonous if swallowed. Avoid contact with eyes and skin and clothing.

#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre: Phone Australia 131 126. For further information, refer to Safety Data Sheet.

#### ENVIRONMENTAL PROTECTION

Ivermectin is extremely toxic to aquatic species. Do not contaminate dams, rivers, streams or other waterways with the chemical or used container.

#### DISPOSAL

Dispose of empty container by wrapping with paper and putting in garbage.

#### STORAGE

Store below 30°C (Room temperature). Store bottle in carton to protect from light.

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