

Bimectin Injection

(ivermectin)

For Cattle and Swine

DIN 02275112



INDICATIONS

For the treatment of infections and infestations due to internal and external parasites in cattle and swine. See package insert for complete list of parasites.

ACTIVE INGREDIENT: Each mL contains 10 mg of ivermectin

See reverse side for Administration and Dosage.

DESCRIPTION

Bimectin Injection is a ready-to-use sterile solution containing 10 mg per mL of ivermectin. Bimectin Injection is formulated to deliver the recommended dose level of 200 µg ivermectin per kg of body weight in cattle when given subcutaneously at the rate of 1 mL per 50 kg. In swine, Bimectin Injection is formulated to deliver the recommended dose level of 300 µg ivermectin per kg body weight when given subcutaneously at the rate of 1 mL per 33 kg.

PACKAGING

ITEM NO.	UNIT PACKAGE	CASE SIZE
1BIM009	50 mL	12
1BIM010	250 mL	12
1BIM011	500 mL	12

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Sterile

Veterinary Use Only

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PRODUCT DESCRIPTION:

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ACTIVE INGREDIENT:

Ivermectin is the first in a series of antiparasitic agents derived from the avermectin family of compounds. The avermectins are highly active, broad-spectrum antiparasitic agents isolated from fermentation of the soil organism *Streptomyces avermitilis*.

INDICATIONS:

CATTLE

Bimectin Injection is indicated for the treatment of infections and infestations due to gastrointestinal roundworms, lungworms, grubs, sucking lice and mange mites in cattle:

Gastrointestinal roundworms: **Ostertagia ostertagi* (adults and fourth stage larvae including inhibited *O. ostertagi*); *O. lyrata* (adults); *Haemonchus placei* (adults and fourth stage larvae); *Trichostrongylus axei* (adults and fourth stage larvae); *T. colubriformis* (adults); *Cooperia oncophora* (adults and fourth stage larvae); *C. punctata* (adults); *Oesophagostomum radiatum* (adults and fourth stage larvae); *Strongyloides papillosus* (adults)

Eye worms: *Thelazia* spp.

Lungworms: **Dictyocaulus viviparus* (adults and fourth stage larvae)

Cattle grubs: (internal parasitic stages): *Hypoderma bovis*; *H. lineatum*

Sucking lice: *Linognathus vituli*; *Haematopinus eurysternus*; *Solenopotes capillatus*

Mites: *Sarcoptes scabiei* var. *bovis*; *Psoroptes ovis* (syn. *P. communis* var. *bovis*)

*Bimectin Injection given at the recommended dosage of 200 µg ivermectin per kg of body weight effectively controls infections with *Ostertagia* spp. acquired up to at least 7 days after treatment and *D. viviparus* acquired up to at least 14 days after treatment.

SWINE

Bimectin Injection is indicated for the treatment of the following parasitic infections and infestations in swine:

Gastrointestinal roundworms: Large roundworms, *Ascaris suum* (adults and L4); Red stomach worm, *Hyostrongylus ribidis* (adults and L4); Nodular Worm, *Oesophagostomum* spp. (adults and L4); Threadworm, *Strongyloides ransomi* (adults and somatic larvae)

Somatic Threadworm Larvae (*Strongyloides ransomi*): Sows must be treated at least seven days before farrowing to prevent infection of piglets.

Lungworm: *Metastrongylus* spp. (adults)

Lice: *Haematopinus suis*

Mites: *Sarcoptes scabiei* var. *suis*

DOSAGE AND ADMINISTRATION:

CATTLE

Bimectin Injection should be given only by subcutaneous injection at the recommended dosage level of 200 µg of ivermectin per kg of body weight. Each mL contains 10 mg of ivermectin, sufficient to treat 50 kg of body weight (maximum 10 mL per injection site).

Bimectin Injection should be given subcutaneously only. Inject in the loose skin in front or behind the shoulder. Use of a 16 gauge, 15 to 20 mm (3/4 inch) needle is suggested. Use sterile equipment.

SWINE

The recommended dose level is 1 mL of Bimectin Injection per 33 kg of body weight (each mL contains 10 mg of ivermectin). The recommended route of administration is by subcutaneous injection in the neck. The solution may be given with any standard automatic single dose equipment. In young pigs, especially those below 16 kg for which less than 0.5 mL of Bimectin Injection is indicated, dosing accuracy is important. The use of a syringe that can accurately deliver as little as 0.1 mL is recommended. Use aseptic technique.

RECOMMENDED TREATMENT PROGRAM FOR SWINE:

I. Breeding Animals

At the time of initiating any parasite control program it is important to treat all breeding animals in the herd. After the initial treatment, use Bimectin regularly as follows:

Sows - Treat prior to farrowing, preferably 7-14 days before, to minimize infection of piglets.

Gilts - Treat 7-14 days prior to breeding. Treat 7-14 days prior to farrowing.

Boars - Frequency and need for treatments are dependent upon parasite exposure. Treat at least two times per year.

II. Feeder Pigs

All feeder pigs should be treated before placing in clean quarters. Pigs exposed to contaminated soil or premises may need retreatment if reinfection occurs.

Note:

1. Bimectin Injection has a persistent drug level sufficient to control mite infestations throughout the egg to adult life cycle. However, since the ivermectin effect is not immediate, care must be taken to prevent reinfestation from exposure to untreated animals or contaminated facilities. Generally, pigs should not be moved to clean quarters or exposed to uninfested pigs for approximately one week after treatment. Sows should be treated at least one week before farrowing to minimize transfer of mites to newborn baby pigs.

2. Louse eggs are unaffected by Bimectin Injection and may require up to three weeks to hatch. Louse infestations developing from hatching eggs may require retreatment.

3. Consult a veterinarian for aid in the diagnosis and control of internal and external parasites of swine.

MODE OF ACTION:

In cattle and swine, ivermectin kills certain parasitic nematodes and ectoparasites, such as mites and lice.

The mode of action is unique to the avermectin class of antiparasitic agents and involves a chemical that serves as a signal from one nerve cell to another, or from a nerve cell to a muscle cell. This chemical, a neurotransmitter, is called gamma aminobutyric acid or GABA.

In roundworms, ivermectin stimulates the release of GABA from the nerve endings and enhances binding of GABA to special receptors at nerve junctions, thus interrupting nerve impulses—thereby paralyzing and killing the parasite.

The enhancement of the GABA effect in arthropods such as mites and lice resembles that in roundworms except that nerve impulses are interrupted between the nerve ending and the muscle cell. Again, this leads to paralysis and death of most species.

Ivermectin has no measurable effect against flukes or tapeworms, presumably because they do not have GABA as a nerve impulse transmitter.

The principal peripheral neurotransmitter in mammals, acetylcholine, is unaffected by ivermectin. Ivermectin does not readily penetrate the central nervous system of mammals where GABA functions as a neurotransmitter.

Bimectin Injection (cont.)

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CLINICAL ADVANTAGES:

Injectable Convenience

Bimectin injection is highly effective against both internal and external parasites of cattle and swine. It can be administered quickly and easily.

Broad Spectrum

Bimectin Injection provides broad-spectrum efficacy against gastrointestinal roundworms, lungworms, cattle grubs, sucking lice and mange mites of cattle and swine with one easy to give injection (see complete list of parasites).

Safety - Ivermectin has demonstrated a wide safety margin at the recommended dose level in cattle and swine. Bimectin Injection may be used in breeding animals.

WARNING:

1. Treated cattle must not be slaughtered for use in food for at least thirty-five (35) days after the latest treatment with this drug; treated swine must not be slaughtered for use in food for at least twenty-eight (28) days after the latest treatment with this drug.
 2. Non-lactating dairy cattle must not be treated with this drug for at least two (2) months prior to calving.
 3. Not for use in lactating dairy cattle.
- KEEP OUT OF THE REACH OF CHILDREN.

CAUTION:

1. A transitory discomfort has been observed in some animals following subcutaneous administration. A low incidence of soft tissue swelling at the injection site has been observed. These reactions have disappeared without treatment. Divide doses greater than 10 mL between injection sites to reduce occasional discomfort or site reaction.
2. Do not administer intravenously or intramuscularly.

ENVIRONMENTAL SAFETY:

Studies indicate that when ivermectin comes in contact with soil, it readily and tightly bonds to the soil and becomes inactive. Drug containers and any residual contents should be disposed of safely (e.g., by burying or incinerating) as free ivermectin may adversely affect fish and certain water-borne organisms.

WHEN TO TREAT FOR GRUB CONTROL?

Bimectin Injection is highly effective against all internal stages of cattle grubs. However, proper timing of treatment is important. For most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season. While this is not particular to ivermectin, destruction of Hypoderma larvae at the period when these grubs are in vital areas may cause host-parasite reactions. Killing Hypoderma lineatum when it is in the perioesophageal tissues may cause bloat; killing *H. bovis* when it is in the vertebral canal may cause staggering or paralysis. Cattle should be treated either before or after these stages of grub development.

Cattle treated with Bimectin Injection after the end of the fly season may be retreated during the winter for internal parasites, mange, mites or lice, without danger of grub-related reactions. For further information and advice on a planned parasite control program, consult your veterinarian.

STORAGE:

Store at room temperature.

PACKAGING:

Bimectin Injection is available in 50 mL, 250 mL and 500 mL vials.

1BIM009/1BIM010/1BIM011
8BIM004/8BIM005/8BIM006