

Noromectin®

(ivermectin)

Injection for Cattle and Swine

1% Sterile Solution



EFFECTIVE TREATMENT MADE EASY

A Broad Spectrum of Activity

Noromectin® 1% Injection is an ivermectin-based parasiticide for the effective treatment of a wide range of internal and external parasites of beef cattle, dairy cattle of non-breeding age and swine.

Noromectin® 1% Injection Offers Your Customers:

- ➔ One low-volume dose for effective treatment and control of internal and external parasites, including gastrointestinal roundworms, lungworms, grubs, sucking lice and mange mites
- ➔ The active ingredient - ivermectin - provides convenience, broad-spectrum efficacy and a high margin of safety
- ➔ Plastic bottles enclosed in display carton for protection from dust and sunlight
- ➔ Four convenient, ready-to-use pack sizes of 50 mL, 250 mL, 500 mL* and 1000 mL*
- ➔ Uncompromising quality control from Norbrook Laboratories – a worldwide leader in animal health
- ➔ A competitively priced solution



Noromectin®
1% Injection (ivermectin)

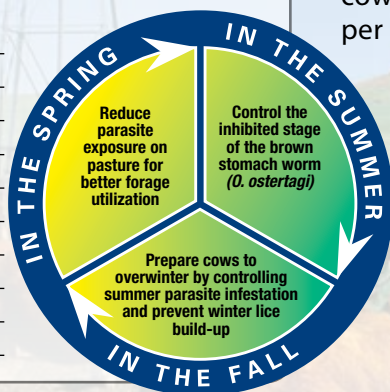
Internal Parasites

	Adults	L ₄	Inhibited Stage
Gastrointestinal Roundworms			
<i>Ostertagia ostertagi</i>	•	•	•
<i>O. lyrata</i>	•	•	
<i>Haemonchus placei</i>	•	•	
<i>Trichostrongylus axei</i>	•	•	
<i>T. colubriformis</i>	•	•	
<i>Cooperia oncophora</i>	•	•	
<i>C. punctata</i>	•	•	
<i>C. pectinata</i>	•	•	
<i>Oesophagostomum radiatum</i>	•	•	
<i>Bunostomum phlebotomum</i>	•		
<i>Nematodirus helvetianus</i>	•		
<i>N. spathiger</i>	•		
Lungworms			
<i>Dictyocaulus viviparus</i>	•	•	

External Parasites

Cattle Grubs (parasitic stages)

<i>Hypoderma bovis</i>	
<i>H. lineatum</i>	
Sucking Lice	
<i>Linognathus vituli</i>	
<i>Haematopinus eurysternus</i>	
<i>Solenopotes capillatus</i>	
Mites (scabies)	
<i>Psoroptes ovis</i> (syn. <i>P. communis</i> var. <i>bovis</i>)	
<i>Sarcoptes scabiei</i> var. <i>bovis</i>	



Recommend Strategic Parasite Control for Herd Protection and Profitability

The economics of Noromectin® 1% Injection allow cow/calf and stocker operations to treat multiple times per year for improved herd health.

Observe label directions and withdrawal times. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. Do not use in female dairy cattle of breeding age or in calves to be processed for veal. Do not use in unapproved species as severe reactions, including fatalities in dogs, may result. See product labeling for full product information.

Noromectin (Ivermectin) Injection for Cattle and Swine

1% Sterile Solution

Parasiticide for the Treatment and Control of Internal and External Parasites of Cattle and Swine.

Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

INTRODUCTION

Noromectin® (ivermectin) injection is an injectable parasiticide for cattle and swine. One low-volume dose effectively treats and controls the following internal and external parasites that may impair the health of...

PRODUCT DESCRIPTION

Ivermectin is derived from the avermectins, a family of potent, broad-spectrum antiparasitic agents isolated from fermentation of Streptomyces avermitilis.

Noromectin injection is a clear, ready-to-use, sterile solution containing 1% ivermectin, 40% glycerol formal, and propylene glycol q.s. and 100% Noromectin injection is formulated to deliver the recommended dose level...

MODE OF ACTION

Ivermectin is a member of the macrocyclic lactone class of enantiocides which have a unique mode of action. Compounds of the class bind to the glutamate-gated chloride channel which is located in the cell membrane of the nerve or muscle cells...

INDICATIONS

Cattle. Noromectin injection is indicated for the effective treatment and control of the following harmful species of gastrointestinal roundworms, lungworms, girds, sucking lice, and mange mites in cattle.

- Gastrointestinal Roundworms (adults and fourth-stage larvae): Oesophagostomum radiatum, Habronema muscae, Cyathostomum spp., Dictyocaulus viviparus, Haemonchus placei, L. colubriformis, Trichostrongylus axei, C. punctata, C. plicifera, Oesophagostomum radiatum, Bunostomum phlebotomum, Bematopsis venenosus (adults only), N. spangleri (adults only)
Lungworms (adults and fourth-stage larvae): Dictyocaulus viviparus
Cattle Girds (parasitic stages): Hypodermatitis bovis, H. imitans
Sucking Lice: Haematoporus asini, Haematoporus eurysternus, Solenopotes capillatus

Mites (see also): Paratropis sibirica (sp., P. communis var. bovis)
Parasitic Arachnids: Haematoporus asini, Haematoporus eurysternus, Solenopotes capillatus

Persistent Activity

Ivermectin injection has been proved to effectively control infections and protect cattle from reinfection with Dictyocaulus viviparus and Oesophagostomum radiatum to 28 days after treatment...

Swine. Noromectin injection is indicated for the effective treatment and control of the following harmful species of gastrointestinal roundworms, lungworms, lice, and mange mites in swine:

Gastrointestinal Roundworms:

- Large roundworm, Ascaris suum (adults and fourth-stage larvae)
Red stomach worm, Hyostrogylus tubidos (adults and fourth-stage larvae)
Pinworm, Oxyuris equi (adults and fourth-stage larvae)
Thyroglydes ransoni (adults)

Swine Roundworm Larvae:

- Thyroglydes ransoni (adults and fourth-stage larvae)
Sows must be treated at least seven days before farrowing to prevent infection in piglets.

Lungworms:

- Mastoglytus spp. (adults)

Lice:

- Haematoporus suis

Mange Mites:

- Sarcoptes scabiei var. suis

DOSEAGE

Cattle. Noromectin injection should be given only by subcutaneous injection under the loose skin in front of or behind the shoulder at the recommended volume. For the treatment of calves, the volume of injection should be 0.1 ml per kilogram (0.1 ml per kg) body weight, sufficient to treat 110 lb (50 kg) of body weight (maximum 10 mL per injection site).

Table with 4 columns: Age Group, Body Weight (lb), Dose Volume (ml), and Dose Volume (ml). Rows include Growing Pigs, Breeding Animals (Sows, Gils, and Boars), and various weight classes.

Swine. Noromectin injection should be given only by subcutaneous injection in the neck of swine at the recommended dose level of 500 mcg of ivermectin per kilogram (2.2 ml) of body weight. Each mL of Noromectin injection contains 10 mg of ivermectin, sufficient to treat 75 lb of body weight.

ADMINISTRATION

Cattle. Noromectin injection is to be given subcutaneously only to reduce the risk of irritation. It should be given under the loose skin in front of or behind the shoulder (see illustration).



When using the 250, 500 or 1000 mL pack size, use only automatic syringe equipment. Clean, properly disinfect needles should be used to reduce the potential for injection site infections. No special handling or protective clothing is necessary.

Swine. Noromectin (ivermectin) Injection is to be given subcutaneously in the neck. Animals should be appropriately restrained to achieve the proper route of administration. Use of a 16- or 18-gauge needle is suggested for sows and boars, while an 18- or 20-gauge needle may be appropriate for young animals. Inject under the skin immediately behind the ear (see illustration).



When using the 100, 250, 500 or 1000 mL pack size, use only automatic syringe equipment. Clean, properly disinfect needles should be used to reduce the potential for injection site infections. No special handling or protective clothing is necessary.

Recommended Treatment Program

Swine. 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 Noromectin injection on a regular basis as follows:
Sows: Treat prior to farrowing, preferably 7-14 days before, to minimize infection of piglets.

Boars:

Treat 7-14 days prior to farrowing. Frequency and need for treatments are dependent upon exposure. Treat at least two times a year.

FEEDER PIGS (Weaners/Growers/Finishers)

All weaners/feeder pigs should be treated before placement in clean quarters. Pigs exposed to contaminated soil or pasture may need retreatment if reinfection occurs.

NOTE:

- (1) Noromectin injection has a persistent drug level sufficient to control the infestations throughout the year to adult life cycle. However, since reinfection from exposure to untreated animals or contaminated facilities, generally, pigs should not be moved to clean quarters or exposed to untreated 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) Loose eggs are uninfected by Noromectin injection and may require up to three weeks to hatch. Larvae infestations developing from eggs are not affected by Noromectin injection.
(3) Consult a veterinarian for aid in the diagnosis and control of internal and external parasites of swine.

Special Minor Use

Reindeer: For the treatment and control of warbles (Oedematoga tarandi) in reindeer, inject 200 micrograms ivermectin per kilogram of body weight, subcutaneously. Follow use directions for cattle as described under ADMINISTRATION.

American Bison: For the treatment and control of girds (Hypodermatitis bovis) in American Bison, inject 200 micrograms ivermectin per kilogram of body weight, subcutaneously. Follow use directions for cattle as described under ADMINISTRATION.

RESIDUE WARNINGS: Do not treat reindeer or American bison within 8 weeks (56 days) of slaughter.

WARNING: NOT FOR USE IN HUMANS.

Keep this and all amps out of the reach of children.

The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information. To report adverse effects, obtain an MSDS or for assistance, contact Norbrook toll free 1-866-591-5777.

RESIDUE WARNINGS: Do not treat cattle within 35 days of slaughter. Because a withdrawal time in milk has not been established, do not use in female dairy cattle of breeding age. A withdrawal period has not been established for this product in pre-milking teats. Do not use in calves to be processed for meat. Do not treat swine within 18 days of slaughter.

PRECAUTIONS

Theoretical discomfort has been observed in some cattle following subcutaneous administration. A low incidence of soft tissue swelling at the injection site has been observed. These reactions have disappeared after treatment. For cattle, divide doses greater than 10 mL between two injection sites to reduce occasional discomfort or site reaction. Use sterile equipment and sanitize the injection site by applying a suitable disinfectant. Clean, properly disinfect needles should be used to reduce the potential for injection site infections.

Two injection sites to reduce occasional discomfort or site reaction. Use sterile equipment and sanitize the injection site by applying a suitable disinfectant. Clean, properly disinfect needles should be used to reduce the potential for injection site infections.

Observe cattle for injection site reactions. Reactions may be due to clostridial infection and should be aggressively treated with appropriate antibiotics. If injection site reactions are suspected, consult your veterinarian. This product is not for intravenous or intramuscular use. Protect product from light.

Noromectin injection for Cattle and Swine has been developed specifically for use in cattle, swine, reindeer, and American bison only. This product should not be used in other animal species as severe adverse reactions, including fatalities in dogs, may result.

When to Treat Cattle with Girds

Noromectin injection effectively controls all stages of cattle girds. However, proper timing of treatment is important for most effective results. Girds should be treated in the early stages of infestation, before the heel fly (warble fly) season. Distribution of Hypodermatitis bovis (cattle girds) at the period when these grubs are in vital areas may cause undesirable host-parasite reactions including the possibility of fatalities. Killing Hypodermatitis bovis when it is in the tissue surrounding the esophagus (gird) may cause salivation and blood killing (4 days when it is in the vertebral canal may cause staggering or paralysis. These reactions are not specific to treatment with Noromectin, but can occur with any insecticide used to control the grubs. Cattle should be treated with Noromectin injection before the heel fly season begins, but only after these stages of grub development. Consult your veterinarian concerning the proper time for treatment.

Cattle treated with Noromectin injection after the end of the heel fly season may experience irritation. Irritation is caused by the action of the adult parasites, mange mites, or sucking lice without danger of grub-related reactions. A planned parasite control program is recommended.

Storage: Store at 39° to 98°F (15° to 30° C).

ENVIRONMENTAL SAFETY

Studies indicate that when ivermectin comes in contact with soil, it readily and tightly binds to the soil and becomes inactive over time. Free ivermectin may adversely affect fish and certain aquatic organisms. Do not permit ivermectin to be carried by surface water to these organisms. Do not contaminate water by direct application of this product; disposal of drug containers. Dispose of containers in an approved landfill or by incineration. As with other avermectins, ivermectin is excreted in the dung of treated insects that use dung as a source of food and for reproduction. The magnitude and duration of such effects are species and life-cycle specific. When used according to label directions, the product is not expected to have an adverse impact on populations of dung-dependent insects.

HOW SUPPLIED

Noromectin Injection for Cattle and Swine is available in five ready-to-use pack sizes:
The 50 mL pack is a multiple-dose, rubber-capped bottle. Each bottle contains sufficient solution to treat 10 head of 550 lb (250 kg) cattle or 100 head of 38 lb (17.3 kg) swine.
The 100 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 20 head of 550 lb (250 kg) cattle or 200 head of 38 lb (17.3 kg) swine.
The 250 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 50 head of 550 lb (250 kg) cattle or 500 head of 38 lb (17.3 kg) swine.
The 500 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 100 head of 550 lb (250 kg) cattle or 1000 head of 38 lb (17.3 kg) swine.
The 1000 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 200 head of 550 lb (250 kg) cattle or 2000 head of 38 lb (17.3 kg) swine.

Restricted Drug - California Use Only as Directed.

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