

# CAUTION

KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING  
FOR ANIMAL TREATMENT ONLY

**PASTORAL AG**

# Ivermectin

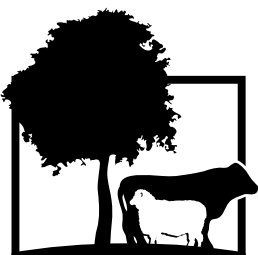
## Pour-On for Cattle

**ACTIVE CONSTITUENT: IVERMECTIN 5 mg/mL**

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

APVMA Approval No.: XXXXX/XXXXX

Contents: 20L;



**PASTORAL AG**

**TITAN AG Pty Ltd**

15/16 Princes Street,  
Newport NSW 2106

T: 02 9999 6655 • F: 02 9999 0483

[www.titanag.com.au](http://www.titanag.com.au)

## INDICATIONS

PASTORAL AG Ivermectin Pour-On for Cattle contains ivermectin, a member of the macrocyclic lactone family of drenches.

For the treatment and control of ivermectin-sensitive gastrointestinal nematodes (including inhibited immature *Ostertagia ostertagi*), lungworms (*Dictyocaulus viviparus*), eyeworms (*Thelazia* spp.), sucking and biting lice, chorioptic and sarcoptic mange mites, buffalo flies (*Haematobia irritans exigua*) and cattle ticks (*Boophilus microplus*).

## PRODUCT DESCRIPTION

PASTORAL AG Ivermectin Pour-On for Cattle is a ready-to-use solution of ivermectin which is a member of the avermectin family. The avermectins are potent broad-spectrum antiparasitic agents which are isolated from fermentation of the naturally occurring soil organism, *Streptomyces avermitilis*. 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.

PASTORAL AG Ivermectin Pour-On for Cattle applied at the recommended dose rate of 500 µg ivermectin/kg bodyweight is indicated for the effective treatment and control of the following harmful parasites of cattle:

Gastrointestinal roundworms:	
For the control of adult and immature (L <sub>4</sub> ):	
<i>Ostertagia ostertagi</i>	Small brown stomach worm (including inhibited stages)
<i>Haemonchus placei</i>	Barber's pole worm
<i>Trichostrongylus axei</i>	Stomach hair worm
<i>T. colubriformis</i>	Intestinal hair worm
<i>Cooperia</i> spp.	Small intestinal worm
<i>Oesophagostomum radiatum</i>	Nodule worm
and adult stages of:	
<i>Cooperia oncophora</i>	
<i>C. punctata</i>	
<i>Oesophagostomum venulosum</i>	
<i>Trichuris</i> spp.	Whip worm
<i>Strongyloides papillosus</i>	Intestinal Threadworm
and immature stages of:	
<i>Nematodirus</i> spp.	Thin Necked Intestinal Worm L <sub>4</sub>
Lungworm:	
Adult and immature <i>Dictyocaulus viviparus</i>	
Eyeworm:	
<i>Thelazia</i> spp. – adult stages	
Sucking and Biting Lice:	
<i>Linognathus vituli</i>	
<i>Haematopinus eurysternus</i>	
<i>Bovicola (Damalinia) bovis</i>	
<i>Solenopotes capillatus</i>	
Mites:	
<i>Chorioptes bovis</i>	
<i>Sarcoptes scabiei</i> var. <i>bovis</i>	
Buffalo Flies:	
<i>Haematobia irritans exigua</i>	

**Cattle tick:** *Boophilus microplus* including organophosphate-, synthetic pyrethroid- and amidine-resistant strains. Maximum tick efficacy is achieved 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. PASTORAL AG Ivermectin Pour-On for Cattle should be alternated with conventional dips or pour-ons when the program requires repeat treatments. DO NOT retreat with PASTORAL AG Ivermectin Pour-On for Cattle in less than the meat withholding period of 42 days.

## PERSISTENT ACTIVITY

PASTORAL AG Ivermectin Pour-On for Cattle applied at the recommended dose of 1 mL per 10 kg bodyweight controls infections of *Trichostrongylus axei* (stomach hair worm) and *Cooperia* spp. (small intestinal worm) for up to 14 days after treatment; *Ostertagia* spp. (small brown stomach worm) and *Oesophagostomum radiatum* (nodule worm) for up to 21 days after treatment; *Dictyocaulus viviparus* (lungworm) for up to 28 days after treatment; *Haematobia irritans exigua* (buffalo fly) for up to 21 days after treatment.

Resistance may develop to any drench.

For best results PASTORAL AG Ivermectin Pour-On for Cattle should be part of a total parasite control program including internal and external parasites. Consult your veterinarian for a complete parasite control program.

## DOSAGE AND ADMINISTRATION:

PASTORAL AG Ivermectin Pour-On for Cattle is for external application to cattle only. Apply along the topline in a narrow strip extending from the withers to the tailhead.

Dose the mob according to the heaviest animal by bodyweight in the group (cows, bulls, calves, heifers, etc.). DO NOT underdose. A representative sample of animals should be weighed with either scales or a weighband before treatment. Where there is a large variation in size within the group, draft into two or more lines based on bodyweight, to avoid excessive overdosing.

**The dose rate is 1mL for each 10kg bodyweight. For external use only.**

Bodyweight (kg)	Dose Volume (mL)	Doses					
		250mL	1L	25 L	5L	10L	20L
50-100	10	25	100	250	500	1000	2000
101-150	15	16	66	166	332	666	1333
151-200	20	12	50	125	250	500	1000
201-250	25	10	40	100	200	400	8000
251-300	30	8	33	83	166	333	666
301-350	35	7	28	71	142	285	570
351-400	40	6	25	62	124	250	500
401-450	45	5	22	55	110	222	444
451-500	50	5	20	50	100	200	400
401-555	55	4	18	45	90	181	362
551-600	60	4	16	41	82	166	332
601-650	65	3	15	38	76	153	306

Heavier animals (for example mature bulls) should receive an additional 5mL for each 50kg over 650kg.

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

**NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

## WITHHOLDING PERIODS:

**MEAT: DO NOT USE less than 42 days before slaughter for human consumption.**

**MILK: NIL**

## EXPORT SLAUGHTER INTERVAL (ESI):

**DO NOT SLAUGHTER for export less than 42 days after treatment.**

## PRECAUTIONS

Use only in well-ventilated areas or outdoors. Close container when not in use. Cattle should not be treated when hair or hide is wet since reduced efficacy may be experienced. Rain falling on cattle in less than 2 hours after dosing may result in reduced efficacy.

Cloudiness may result when PASTORAL AG Ivermectin Pour-On for Cattle is stored at temperatures below 0°C. Allowing to warm at room temperature will restore the normal appearance without affecting efficacy.

The antiparasitic activity of ivermectin will be impaired if the formulation is applied to areas of skin with mange scabs or lesions, or with dermatoses or adherent materials eg. caked mud or manure.

This product is for application to the skin surface only, do not give orally or parenterally.

PASTORAL AG Ivermectin Pour-On for Cattle is not recommended for use in species other than cattle.

Treatment should not be repeated in less than 42 days.

## SAFETY TO CATTLE

Studies have demonstrated a wide safety margin in the use of ivermectin. Based on plasma levels, the topically applied formulation is expected to be at least as well tolerated by breeding animals as is the subcutaneous formulation, which has demonstrated an adequate safety margin in breeding animals.

## SAFETY DIRECTIONS

Poisonous if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use.

## FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND THE ENVIRONMENT

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

## DISPOSAL

Break, crush or puncture and bury empty containers at a local authority landfill. If not available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt. DO NOT dispose of undiluted chemicals on site.

## STORAGE

Store below 25°C (Air Conditioning). Store in carton to protect from light. Unused product should be discarded if not used within 6 months of initially opening the container.

## MATERIAL SAFETY DATA SHEET

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for PASTORAL AG Ivermectin Pour-On for Cattle is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit [www.titanag.com.au](http://www.titanag.com.au)

**CONDITIONS OF SALE:** TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

**DANGER**  
**GIVES OFF HIGHLY FLAMMABLE VAPOUR**  
**KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME AND OTHER SOURCES**  
**OF IGNITION.**  
**KEEP CLOSED WHEN NOT IN USE.**

**UN1219**  
**iso-PROPANOL**  
**PGII**  
**DANGEROUS GOODS DIAMOND**  
**(Flammable Liquid 3)\***  
**HIGHLY FLAMMABLE**

BATCH NO:

DATE OF MANUFACTURE: