
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
FOR ANIMAL TREATMENT ONLY



LIVAMOL[®] with BioWorma[®]

ACTIVE CONSTITUENT

Each gram contains: Minimum of 30,000 chlamydo spores of
Duddingtonia flagrans IAH 1297



Nutritional supplement containing the natural biological control, BioWorma[®], that captures and consumes infective worm larvae (including chemical/anthelmintic multi-resistant larvae) within the manure of grazing animals.

Livamol[®] with BioWorma[®] is a palatable feed supplement containing the spores of *Duddingtonia flagrans* as **BioWorma[®]**, a naturally occurring fungus found in soil and pasture, which has been combined with **Livamol[®]** (see below). **BioWorma[®]** is a non-chemical biological control for the free-living stages of parasitic gastrointestinal nematodes of grazing animals, which acts by substantially reducing the numbers of infective worm larvae (including chemical/anthelmintic multi-resistant larvae) emerging from manure onto pasture. When fed to animals, the thick-walled spores remain inert (having no effect within the host animal) and resist digestion, passing through into the manure. There they germinate and form trapping organs that capture, paralyse and consume emerging infective worm larvae (including chemical/anthelmintic multi-resistant larvae). The crucial re-infestation stage of the parasites' life cycle is interrupted, reducing the amount of re-infection from contaminated pasture. This interruption of the life cycle significantly reduces parasitic nematodes on pasture. The spores are safe, non-toxic and residue-free.

Livamol[®] is the ideal delivery vehicle for **BioWorma[®]**, providing a nutritious base of proteins, energy plus added vitamins and minerals which are important for the development and maintenance of immunity of young, growing and grazing animals. Animals receiving adequate feed, maintaining good condition through good nutrition are better able to cope with parasitism and this has a positive impact on their resistance and resilience to worms.

Livamol[®] with BioWorma[®] is fed to grazing animals to reduce nematodes:

The following is a list of roundworms/nematodes trapped by *Duddingtonia flagrans* globally and the presence or absence of some of these nematodes may vary from region to region. Additionally there will be mixed infections with several worm species infecting the host at the same time:

Sheep & Goats: Barber's Pole Worm or Wire Worm (*Haemonchus* spp.), Black Scour Worm or Hair Worm (*Trichostrongylus* spp.), Brown Stomach Worm (*Teladorsagia* (*Ostertagia*) spp.), Nodule Worm (*Oesophagostomum* spp.), Thin-necked Intestinal Worm (*Nematodirus* spp.), Hookworm (*Bunostomum* spp.), Intestinal Worm (*Cooperia* spp.), Large-mouthed Bowel Worm (*Chabertia* spp.), *Skrjabinema* spp., Threadworm (*Strongyloides* spp.), Whipworm (*Trichuris* spp.), *Gongylonema* spp.* and *Mecistocirrus* spp.*.

Cattle: Barber's Pole Worm or Wire Worm (*Haemonchus* spp.), Brown Stomach Worm (*Ostertagia* spp.), Black Scour Worm or Hair Worm (*Trichostrongylus* spp.), Hookworm (*Bunostomum* spp.), Intestinal Worm (*Cooperia* spp.), Thin-necked Intestinal Worm (*Nematodirus* spp.), Nodule Worm (*Oesophagostomum* spp.), Threadworm (*Strongyloides* spp.), *Toxocara vitulorum**, Whipworm (*Trichuris* spp.), *Gongylonema* spp.* and *Mecistocirrus* spp.*.

Horses: Large strongyles (large red worms), including *Strongylus* spp., *Triodontophorus* spp. and *Oesophagodontus* spp., small strongyles (small red worms or cyathostomes), including *Cyathostomum* spp., *Cylicocyclus* spp. and *Cylicostephanus* spp., Stomach Hair Worm (*Trichostrongylus axei*), Ascarids (*Parascaris equorum*), Threadworms (*Strongyloides westeri*) and Pinworms (*Oxyuris equi*).

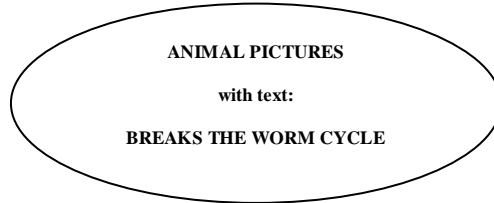
Other grazing animals: including Deer, Alpacas and zoo animals.

There are no negative effects on non-target soil nematodes, earthworms, microarthropods, soil bacteria and fungi. Beneficial insects feeding or breeding on manure (e.g. dung beetles, fly larvae) are not negatively

affected by the presence of *Duddingtonia flagrans*. Manure decomposition is not altered by the presence of *Duddingtonia flagrans*.

There have not been any recorded negative impacts on non-target soil nematodes.

2 kg, [7.5 kg], [10 kg], [11 kg], [15 kg], [20 kg], [22 kg], [25 kg], [1000 kg] NET



SOUTERS'S LOGO
COMPANY LOGO®

THIS PRODUCT DOES NOT CONTAIN RESTRICTED ANIMAL MATERIAL

LIVAMOL® with BioWorma®

Livamol® with BioWorma® is a palatable and nutritious blend of proteins, energy and polyunsaturated oils formulated to improve coat condition and general appearance of all grazing animals. Selected omega-3 fatty acids and high oil protein meals improve coat and skin appearance. Coat colour may be affected by dietary levels of minerals such as zinc and copper. **Livamol® with BioWorma®** has been formulated to supplement the daily intake of protein, fatty acids, vitamins and minerals, including calcium and phosphorus.

INGREDIENTS INCLUDE: Protein & Oilseed Meals, Fish Oil, Molasses and added Vitamins and Minerals.

ADDED CONSTITUENTS PER KG:

Vitamin A (Retinol)	60,000 I.U.
Vitamin D3 (Cholecalciferol)	12,000 I.U.
Vitamin B1 (Thiamine)	1 mg
Vitamin B2 (Riboflavin)	2 mg
Vitamin B6 (Pyridoxine)	1 mg
Vitamin B12 (Cyanocobalamin)	32 µg
Copper (Cu) as sulphate	15.7 mg
Cobalt (Co) as sulphate	80 µg
Iodine (I) as sodium iodide	87 µg
Manganese (Mn) as oxide	104 mg
Zinc (Zn) as oxide	25 mg
<i>Duddingtonia flagrans</i> IAH 1297	30 x 10 ⁶ Chlamydo spores

NUTRITIONAL INFORMATION / GUARANTEED ANALYSIS

Minimum Crude Protein	20 %	
Minimum Crude Fat	5 %	
Minimum Crude Fibre	9 %	
Calcium (Ca)	Min. 4 %	Max. 6 %
Phosphorus (P)	Min. 1.5 %	Max. 2.5 %
Salt	Nil	
Maximum Fluorine (F)	0.025 %	
Average Digestible Energy	11 MJ/kg	

DIRECTIONS FOR USE

Dosage and Administration: Dose **Livamol with BioWorma®** according to bodyweight.

1. For best results, treat animals with a suitable chemical wormer/anthelmintic.
2. Ideally, where possible, move the treated animals onto low worm pasture (that is, pasture that has not been grazed by the same animal species for a minimum 6 weeks).

3. The most worm susceptible are young animals (from 3 months up to 18-24 months of age) and periparturient females (last month of pregnancy and while producing milk) as they are the most likely to have less resistance to worm infestation due to low immunity. Pasture contamination by adult stock, even with low faecal egg counts (FEC), should not be underestimated considering the volume of faecal material they place on pasture.
4. Commence daily feeding of **Livamol with BioWorma[®]** to minimise pasture infectivity and maintain the animal's low worm status. The product will not reduce pre-existing larval pasture contamination. Thoroughly mix **Livamol with BioWorma[®]** with feed or feed supplements.
5. **Livamol with BioWorma[®]** will begin to work immediately within the manure of treated animals, and for best results may be fed continuously when climatic conditions are conducive to **BioWorma[®]** and parasitic nematode activity.
6. **Livamol with BioWorma[®]** is recommended for strategic use during periods when weather conditions are conducive to larval development and transmission onto pasture at temperatures above 5° Celsius (40° Fahrenheit).
7. Use in conjunction with a recommended worm management strategy for your area by contacting your Veterinarian, Animal Health Advisor or Government Advisory groups for a strategic Integrated Parasite Management (IPM) plan. It is important to consider the principles of refugia.
Visit: Australia: <http://www.wormboss.com.au> OR New Zealand: <http://wormwise.co.nz>
8. Faecal egg counts (FECs) may be useful to monitor the effectiveness of the worm management strategy. Other options may include faecal egg count reduction test (FECRT) and/or identifying worm species by using faecal larval cultures (FLC).

DAILY FEEDING RATES							
LIVAMOL[®] with BioWorma[®] may be mixed with feed, offered by free access alongside other feed or may be used in formulated rations preferably under the direction of a nutritionist or veterinarian. (A standard coffee mug (300 mL) holds 200 g LIVAMOL[®] with BioWorma[®])							
Bodyweight * (kg)	25 kg	50 kg	100 kg	200 kg	300 kg	400 kg	500 kg
Dosage (g/head/day)	25 g	50 g	100 g	200 g	300 g	400 g	500 g

*Dose according to heaviest animal in the group.

Use additional **100 g for each 100 kg** for animals heavier than **500 kg**.

Doses per/pack	25 g/head	50 g/head	100 g/head	200 g/head	300 g/head	400 g/head	500 g/head
2 kg	80	40	20	10	6	5	4
7.5 kg	300	150	75	37	25	18	15
10 kg	400	200	100	50	33	25	20
11 kg	-	-	-	-	-	-	-
15 kg	600	300	150	75	50	37	30
20 kg	800	400	200	100	66	50	40
22 kg	-	-	-	-	-	-	-
25 kg	1,000	500	250	125	83	62	50
1000 kg	40,000	20,000	10,000	5,000	3,333	2,500	2,000

WITHHOLDING PERIODS: MEAT: Zero (0) days, MILK: Zero (0) days.

TRADE ADVICE: EXPORT SLAUGHTER INTERVAL (ESI): Zero (0) days

SAFETY DIRECTIONS: May irritate the eyes, nose and throat. Avoid inhaling dust. When preparing feed wear disposable gloves and disposable dust mask covering the mouth and nose. Wash hands after use.

FIRST AID: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131 126; New Zealand 0800 764 766.

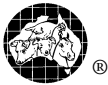
ADDITIONAL USER SAFETY INFORMATION: Additional information is listed in the safety data sheet available from International Animal Health Products Pty Ltd.

DISPOSAL [for paper or cardboard containers and paper material bags]: Shake container into medicated feed. Do not dispose of undiluted chemicals on-site. Break, crush, or puncture container and deliver to an approved waste management facility. If an approved waste management facility is not available, bury the punctured containers 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

DISPOSAL [for plastic containers]: Triple-rinse container into the medicated feed. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean container to recycler or designated collection point. If not recycling, break, crush, or puncture container and deliver to an approved waste management facility. If an approved waste management facility is not available, bury the broken, crushed or punctured containers 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

DISPOSAL [for plastic bags]: Single-rinse or shake container into the medicated feed. Do not dispose of undiluted chemicals on-site. Puncture bag and deliver to an approved waste management facility. If an approved waste management facility is not available, bury the container 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

STORAGE: Store below 30 °C (Room Temperature). **KEEP OUT OF REACH OF CHILDREN.**
Keep container tightly closed in a moisture free environment.



Marketed by: IAH Sales Pty Ltd. ABN 57 109 433 883
18 Healey Circuit, Huntingwood, NSW 2148 Australia
Telephone: (61) (2) 96727944 **Fax:** (61) (2) 96727988
Emergency Contact: Poisons Information Centre. Phone Australia 131 126; New Zealand (0800 POISON) 0800 764 766.
Website: www.iahp.com.au **Email:** info@iahp.com.au

APVMA Approval No.: 82646/106348

Batch No:
Expiry Date:

NEW ZEALAND INFORMATION:

Approved pursuant to the HSNO Act. HSR No. 101167. Must not be applied into, or onto water. Animals must not be allowed onto surface waters while receiving treatment.

Caution: In Sheep, liver levels of copper may be quite variable. Consequently there is always the risk of copper-poisoning (death) occurring following copper supplementation in this species.

Withholding Period: Nil

It is an offence for users of this product to cause residues exceeding the relevant MRL.

Australia's trade advice and Export Slaughter Interval information do not apply in New Zealand.

By law the user must take due care, obtaining expert advice when necessary, to avoid unnecessary pain and distress.

ACVM No. A011335. See www.foodsafety.govt.nz for registration conditions.

Safe Handling Instructions: Potential to cause contact or respiratory sensitisation. Wear gloves, apron and dust mask.

* These parasites do not occur in New Zealand.

Registered to: International Animal Health Products Pty Ltd. ACN 003 185 699.

18 Healey Circuit, Huntingwood, NSW, 2148, Australia

NZ Agent: International Animal Health Products Ltd

C/-Gilligan & Co., Level 4, Corner of Kent and Crowhurst Streets, Newmarket, Auckland, 1023

International Toll Free: 0800 424 999 (0800 IAH 999)

24 Hour Emergency Contact: NZ Poisons Information Centre 0800 764 766 (0800 POISON)

IMPORTANT NOTICE – TERMS OF USE OF LIVAMOL WITH BIOWORMA®

CONDITIONS OF SALE:

International Animal Health Products Pty Ltd owns the intellectual property rights in the biological agent, IAH 1297 which this product contains. This product is supplied solely for your personal use as an end customer to administer it to your livestock in accordance with the manufacturer's instructions. You must not, and must not assist anyone else to, use the product in connection with: (a) manufacturing, reselling or resupplying the product or its biological agent; (b) isolating, purifying or culturing the biological agent to create a similar or competing product for your own use or for resale or resupply; or (c) extracting, replicating, modifying or otherwise using any part of the biological agent, including its nucleic acid or proteins, to create any product for your own use or for resale or resupply.

This product is sold on the express condition that it must be used strictly in accordance with the manufacturer's instruction for use. No warranty, whether expressed or implied, is given for any and all damages, which may arise for goods not used in accordance with the manufacturer's instructions.

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