

CAUTION

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



Equiduo

**Liquid Tapewormer Broad Spectrum
Wormer & Boticide For Horses**

Introduction

iO Equiduo (ivermectin and praziquantel) has been formulated for administration by oral drench or stomach tube (nasogastric intubation). One low-volume dose is effective against important internal parasites, including tapeworms and the arterial stages of *Strongylus vulgaris*, and bots.

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

Praziquantel is indicated for the treatment of tapeworms (*Anoplocephala magna*, *Paranoplocephala mamillana* (adult, immature, heads, segments).

Mode 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 membranes to chloride ions with hyperpolarization 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.

Praziquantel induces a rapid and sustained paralytic muscle contraction of the tapeworm parasite and tegumental disruption followed by expulsion of the parasite.

INDICATIONS:

iO Equiduo when used at the recommended dose rate of 200µg ivermectin per kilogram liveweight and 1.5 mg/kg praziquantel controls the following parasites of horses:

Tapeworms: *Anoplocephala perfoliata*, *Anoplocephala magna*, *Paranoplocephala mamillana* (adult, immature, heads, segments)

Large Strongyles:

- ***Strongylus vulgaris*** (adults and arterial larval stages)
- ***Strongylus edentatus*** (both adult and tissue stages)
- ***Strongylus equinus*** (Adults)
- ***Tridontophorus spp.*** (Adults)
- ***Craterostomum acuticaudatum*** (Adults)
- **Small Strongyles:** including benzimidazole resistant strains
- ***Cyathostomum spp.*** (Adults and fourth-stage larvae)
- ***Cylicocyclus spp.*** (Adults and fourth-stage larvae)
- ***Cylicostephanus spp.*** (Adults and fourth-stage larvae)
- ***Cylicodontophorus spp.*** (Adults and fourth-stage larvae)
- ***Gyalocephalus spp.*** (Adults and fourth-stage larvae)
- ***Coronocyclus spp.*** (Adults and fourth-stage larvae)
- ***Parapoteriostomum spp.*** (Adults and fourth-stage larvae)
- ***Petrovinema spp.*** (Adults and fourth-stage larvae)
- ***Poteriostomum spp.*** (Adults and fourth-stage larvae)
- **Pinworms:** *Oxyuris equi* (Adults and fourth-stage larvae)
- **Ascariids:** *Parascaris equorum* (Adults and fourth-stage larvae)
- **Bots:** *Gasterophilus spp.* (oral and gastric stages)
- **Hairworms:** *Trichostrongylus axei* (Adult)
- **Intestinal Threadworms:** *Stongyloides westeri* (adult)
- **Large Mouth Stomach Worms:** *Habronema muscae* (adult)
- **Lungworms:** *Dictyocaulus arnfieldi* (adult and immature)

iO Equiduo also controls skin lesions caused by cutaneous larvae of Habronema and Draschia spp. (summer sores), and Onchocerca spp., microfilariae (cutaneous onchocerciasis)

DIRECTIONS FOR USE:

SHAKE WELL BEFORE USE

The recommended dose is 1mL iO Equiduo per 50kg liveweight (equivalent to 200µg ivermectin per kg liveweight and 1.5 mg praziquantel per kg liveweight). iO Equiduo can be given as an oral drench or by stomach tube (nasogastric intubation). Nasogastric intubation should only be done by a veterinarian or under veterinary supervision.

Administration by oral drench:

For administration by this method, an undiluted dose is usually preferred. Clear the horse's mouth of any food material, elevate the horse's head, and using a suitable dosing syringe, deposit the appropriate dose in the back of the mouth. In order to avoid unnecessary coughing or the potential for material to enter the trachea and lungs, do not use excessive pressure, do not use a large dose volume of diluted iO Equiduo, and do not deposit the dose in the laryngeal area. Increased dose rejection may occur if the dose is deposited in the front of the mouth. Keep the horse's head elevated and observe the

horse to ensure the dose is swallowed.

Administration by stomach tube (gravity or positive flow):

Drenching horses by nasogastric intubation requires specialised skills and knowledge. Special consideration should be given to the effects of potential for injury from handling, restraint and placement of the tube during administration by stomach tube. Nasogastric intubation should only be done by a veterinarian or under veterinary supervision.

The recommended dose can be used diluted or undiluted up to approximately 40 times with clean tepid water. Use tepid water to flush any drug remaining in the tube into the horse's stomach. Pour iO Equiduo into a graduated cylinder for dose measurement. Alternatively, use a calibrated dosing syringe inserted into the bottle to measure the appropriate dose. Use a clean dry syringe if accessing the bottle to avoid contaminating the remaining product.

Discard any unused diluted iO Equiduo suspension 24 hours after dilution.

Develop a Regular Treatment Plan:

All horses should be subject to regular worming to maintain good health and peak condition. Particular attention should be given to young horses and mares. Foals should be treated initially at 6 to 8 weeks of age and this treatment repeated regularly as required. Frequency of treatment should be assessed by each property's veterinary adviser considering the number of horses, their age distribution, reproductive status, stocking rate, grazing access, climate and property's parasite infestation status. iO Equiduo is highly effective in the treatment and control of most types of equine helminths including tapeworms, gastrointestinal, cutaneous and pulmonary nematodes and bots of horses of any age. With a regular treatment program the chances of verminous arteritis and colic caused by *S. vulgaris* will be reduced.

Safety in Using: iO Equiduo may be used both in young foals and very old animals. Mares may be treated at any stage of pregnancy and fertility will not be affected in either sex. Swelling and itching reactions after treatment with iO Equiduo have occurred in horses carrying heavy infections of neck threadworm microfilariae, *Onchocerca sp.* These reactions were most likely the result of microfilariae dying in large numbers. Symptomatic treatment may be advisable.

Healing of summer sores involving extensive tissue changes may require other therapy in conjunction with iO Equiduo. Reinfection, and measures for its prevention should also be considered.

DO NOT USE IN ANIMALS OTHER THAN HORSES

WITHHOLDING PERIOD:

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

Package Information

iO Equiduo is available in 50mL, 100mL, 250 mL and 1L plastic bottles. Each 100mL bottle contains sufficient ivermectin and praziquantel to treat 10 x 500kg horses. Contents may be poured into a graduated cylinder for dose measurement. Alternatively, a clean dry syringe may be inserted directly into the bottle to draw off the appropriate dose.

STORAGE: Store below 30°C (Room Temperature). Do not freeze. Store bottle in carton to protect from light.

SAFETY DIRECTIONS: Poisonous if swallowed. May irritate the eyes. Avoid contact with eyes. Wash hands after use.

FIRST AID: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26

Additional information is available in the Material Safety Data Sheet available from Apparent Pty Ltd Suite G.08, 762 Toorak Road, Glen Iris VIC 3146 AUSTRALIA

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:

Dispose of empty container by wrapping in paper and placing in garbage

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