



## How to manage and avoid anthelmintic resistance in horses

Estimated reading time: 8 minute(s)

**Resistance to administered anthelmintic drugs has been reported to be high in Equine species, such as horses, donkeys and zebras.**

**Today we dig more in-depth on anthelmintic resistance in horses, which has become a major concern for horse farming communities around the world.**

**Helminths are a unique group of parasitic worms** that includes nematodes, cestodes and trematodes and anthelmintic drugs are used to treat infections of animals with parasitic worms.

### **How to fight anthelmintic resistance**

**Appropriate grazing systems** are a necessity to fight resistance, as it **minimizes contamination** and spread of infection across a herd under treatment. In general, **horses are predisposed to gastrointestinal nematodes when grazing on contaminated pastures**, where they are likely to ingest huge number of worms.

A member of the **strongyle** group, known as the cyathostomins, is relatively abundant in nature.

An increase in cyathostomins has a deleterious effect which compromises the health of affected horses, causing chronic diarrhea, reduced stamina,



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stunted growth among young horses, weight loss and eventually death in severe immune-compromised horses.

### **Basic life cycle of strongyloides**

The strongyloides life cycle occurs on land and in the intestinal lining of the host. Adult worms lay eggs on the intestines, which are excreted as faecal material. Different stages of larvae develop on the faecal matter which is more suitable. Consequently ingestion of well-developed larvae by horses may occur when grazing. The continue repetition of this cycle may lead to the onset of symptoms for the horse.

### **How to spot a strongyloides infection in horses**

**Laboratory tests** such as the faecal egg count reduction test (FECRT), facilitates the administration of anthelmintic antibiotics based on the strongyle eggs accumulation or reduction present on the faecal material. This test helps farmers rearing healthy horses.

### **Commonly used anthelmintic treatments in horses**

- Tetrahydropyrimidines
- Fenbendazole
- Ivermectin

### **Route of administration of drugs**

- Oral
- Injectable



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### What can be done after an infection occurred?

- Liaison with veterinarians prior to purchasing of any anthelmintic.
- Through collaborative efforts with laboratories, faecal egg count based treatments may be adopted, such that horses with >200 eggs per gram in faecal matter may be treated. On the other hand, horses with <200 eggs per gram in faecal matter can be left untreated.
- Avoid constant use of anthelmintic treatments, as this favors resistance, and use a different route to administer the anthelmintic.
- Though a cumbersome exercise, but quite effective, removal of faecal matter on [pastures](#) is recommended in order to break the nematode cycle.
- If the horses are fed on hay, ensure the hay is safe for consumption.
- Avoid under and over dosing during treatment.

In summary, **effective management of anthelmintic treatment is vital when rearing horses**, as repeated use results in resistance. Therefore, **suppressing accumulation of nematodes is the key to a healthier horse.**

### References

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