

By: David Ellefson, DVM



## Fall Equine Bot Control



Horse bot fly, is the common name. Two species are found in North America, *G. intestinalis* and *G. nasalis*. Bot flies have a unique lifecycle which gives them the opportunity to cause damage in two locations, the mouth and the stomach. Today's equine dewormers are not created equal in their ability to kill the different migrating stages of bot flies. Products like Zimecterin® and BIMECTIN® (1.87% ivermectin) provide the broadest boticide efficacy per label claims.



Larvae in Stomach

## **DESCRIPTION AND LIFE CYCLE**

The cycle begins with eggs laid in the early summer months. The female bot fly can deposit between 150 and 1000 eggs on a horse's body. The female lays eggs directly on single hairs of the horse's front legs (cannon bone area), abdomen, flanks, and shoulders. The eggs develop into first stage larvae within 5 days of being deposited by the female. Larvae are stimulated to emerge by the horse licking or biting the attached, fully developed eggs. The larvae either crawl to the mouth or are ingested and subsequently bury themselves in the tongue, gums, or lining of the mouth and remain for approximately 28 days. When the first stage larvae burrow into the mouth, the horse may experience severe irritation, as well as the development of pus pockets and loosened teeth. Loss of appetite may also develop.

After wandering in the mucosa of the mouth, the larvae molt to the second stage and move into the stomach. The second and later third stage larvae attach to the lining of the stomach. The second and third instar larvae remain immobile in the stomach for the following 9 to 12 months. The third instar larvae are relatively large, between ½ to ¾ inch long. They have hooked mouthparts which enable the larvae to securely attach to the lining of the stomach and intestinal tract. They also cause abrasion to the lining of the stomach, which can cause chronic gastritis, ulcerated stomach, esophageal paralysis, peritonitis, stomach rupture, squamous cell tumors, and anemia.

After the third stage larvae have matured, they detach from the gastrointestinal tract and pass from the horse's body in the feces. The larvae burrow into the soil or dried manure where they pupate, and remain for the next 1 to 2 months. The adult horse bot fly emerges after a 3 to 10 week period during the summer or fall season.

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## Is your dewormer doing all it should?



PRODUCT	G. intestinalis			G. nasalsis		
	1st Phase	2nd Phase	3rd Phase	1st Phase	2nd Phase	3rd Phase
BIMECTIN® (1.87% ivermectin)	~	~	~	~	~	~
Zimecterin® (1.87% ivermectin)	~	~	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
Quest® (moxidectin)		~	~			~
Quest Plus® (moxidectin/ praziquantel)		~	~			~
EQUIMAX® (ivermectin/praziquantel)	~	~	~	~	~	~

(Based on registered FDA labels and FOI Summaries)

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