



## NEWSLETTER FALL 2007

### BVMC News:

Welcome to the first equine newsletter for the Brodhead Veterinary Medical Center. Fall is approaching rapidly and we all wonder how summer went by so fast. Luckily, this will mean the end of horse flies, greenheads, deer flies, mosquitoes, and ticks. Unfortunately, for most this means the dreaded winter is approaching, so get out and ride, drive, and play with your horse!

At BVMC we strive to continually invest in our knowledge and services. We attend educational meetings annually to keep our minds sharp. Also, in the last year we have invested in a portable radiograph machine to aid in our lameness and laminitis (founder) diagnosis. We look forward to offering digital radiography in the not to distant future. We are also hoping to add a second portable ultrasound machine. We would like to highlight the new equine services we are offering:

#### **BVMC's *new* equine services:**

**Portable radiography**

**Therapeutic trimming & shoeing**

**Basic pre-purchase exams**

We have also hired a fifth large animal veterinarian, Dr. Jason Mertens (Dr. Ted Mertens son). Dr. Jason Mertens specializes in equine and, specifically, the equine hoof and dentistry. He has been with us for over a year.

Another area we would like to highlight is the BVMC website. We hope to continually update our website to keep it new and refreshing. Currently the main feature of the website is our online catalog. The catalog offers excellent pricing and rapid shipping to our clientele and we hope to be adding several equine products soon. We always welcome input from our clients, so if you have suggestions or topics you would like to see, let us know!

Additionally, Dr. Ray Pawlisch will be the Wisconsin Veterinary Medical Association President. We wish "Mr. President" lots of luck and patience during his presidency.

***BVMC will be hosting Dr. Hoyt Cheramie, DVM to speak November 8<sup>th</sup> about Equioxx and Gastrogard/Ulcergard (see included fliers for additional information). Food will be served at 5:30 pm prior to the exciting talk at 6:30 pm. Please come with an appetite for food and knowledge!***

**PLEASE RSVP BY SEPTEMBER 30<sup>th</sup>**



## Medical News:

In this issue we will be discussing internal parasite resistance and control.

### **THE BASICS:**

What internal parasites are common in horses?

Small strongyles, large strongyles, tapeworms, roundworms, and bots.

Which dewormer works on each parasite?

*Tapeworms:* pyrantel pamoate & praziquantel

*Small & Large strongyles:* febantel, fenbendazole, mebendazole, oxfendazole, oxibendazole, pyrantel pamoate, pyrantel tartrate, ivermectin, moxidectin, piperazine (small strongyles only), & dichlorvos

*Bots:* ivermectin, moxidectin

*Roundworms (ascarids):* febantel, fenbendazole, mebendazole, oxfendazole, oxibendazole, pyrantel pamoate, pyrantel tartrate, ivermectin, moxidectin, piperazine (small strongyles only), dichlorvos, & trichlorfon

*The table below contains the Product name and what drug is contained in it.  
The highlighted products are the most commonly seen on store shelves.*

Drug Name	Package/Trade Name
Febantel	
<b>Fenbendazole</b>	<b>Panacur, Safe-Guard</b>
Mebendazole	Telmin
Oxfendazole	
Oxibendazole	Anthelcide EQ
<b>Pyrantel pamoate</b>	<b>Strongid T</b>
<b>Pyrantel tartrate</b>	<b>Strongid C</b>
<b>Ivermectin</b>	<b>Zimectrin, Eqvalan, lots of generics</b>
<b>Moxidectin</b>	<b>QUEST</b>
Piperazine	
Dichlorvos	
Praziquantel	
<b>Ivermectin + Praziquantel</b>	<b>Zimectrin Gold, Equimax</b>
<b>Moxidectin + Praziquantel</b>	<b>QUEST Plus</b>

How often should horses be dewormed? Depends... 1 horse on 20 acres versus 20 horses on 1 acre calls for drastically different control programs. There is not an easy way to determine what each persons/horses parasite control program should be. The latest thinking is parasite control should be tailored to each individual and not applied to the whole herd. Age is also important, foals need more frequent deworming because they have limited natural immunity. Please consult with a BVMC veterinarian about parasite control options for your farm/stable.

### **THE RESISTANCE PROBLEM:**

Currently there are only three major classes of dewormer from which the above drugs are derived. What does this mean to you? When parasites become resistant to one drug in a particular drug class (for



instance ivermectin and moxidectin are different drugs but in the same avermectin drug class), they easily become resistant to every drug in that class. Now, the problem is that we need to use two of the drug classes to control all parasites in horses...this doesn't leave us very many options when our parasites become resistant to them! The really big kicker is that the drug companies tell us they have not discovered any new dewormers recently and drug development generally takes 10-20 years!

A recently written paper by Ray M. Kaplan, DVM, PhD at the Department of Infectious Diseases at the University of Georgia College of Veterinary Medicine stated it was indicated that **40% of all farms tested for small strongyles were resistant** to fenbendazole, oxibendazole, and pyrantel pamoate

There are several camps people are following to deter resistance.

- One camp says you have to rotate dewormers so the parasites can't become resistant. The theory being the parasites that are resistant to one drug will get killed by the next dewormer in the rotation. The problem with this is that if there are a small percentage of parasites resistant to drug #1 and an even smaller percentage of those same parasites resistant to drug #2 and so on, then we are now essentially selecting for those that are resistant to drugs #1 and #2 and over time they will slowly multiply until the dewormers no longer work.
- Another camp says use the same dewormer until it doesn't work and then switch to another class. This may seem like a bad idea, but several sheep and goat (both species have major problems with parasites and drug resistance) ranchers have noticed that ivermectin is no longer working, but the old dewormer levamisole that quit working years ago is again working. The theory being once the "new" dewormer quits working the "old" dewormer should work.
- The latest theory in sheep and goats is to deworm only when an animal has an obvious parasite load affecting its wellbeing. This system works because the major parasite of concern is a blood sucker and visual signs can be used to determine when deworming is needed. This system works well for a couple of reasons. First, only animals that need the dewormer get it, which lowers costs and residual dewormer in the environment in the feces. Second, it promotes the animal's immune system to fight off parasites naturally. This is great but how can this be applied to horses? Read on...

## **SLOWING PARASITE RESISTANCE:**

There are steps that can be taken to slow resistance.

1. Check each horse's fecal sample for parasite eggs and only deworm horses carrying an elevated parasite load. A common misconception is eliminating all worms from your horse is the goal. The goal should rather be to decrease the worm burden on horses that cannot do it naturally. What is meant by this? The majority of horses can control their parasite load via their immune system. Having a low level of parasite load actually helps stimulate the immune system and prevent a more serious parasite load. However, certain horses cannot or do not build immunity and are easily overburdened with parasites. These are the horses we need to target in our parasite control program. It has been stated that 20% of the horses carry about 80% of the worms.
2. Check each horse's fecal sample for parasite eggs 2 weeks after deworming to make sure the dewormer was effective. If a farm has resistant parasites, but does not perform fecal checks for parasite eggs after deworming, then they will not know they have a resistance problem.



3. Check each horse's fecal sample regularly. The amount of time that passes between fecal checks depends on each individual horse's surroundings (i.e. #horses/acre, #fecal piles/acre). Please consult with a BVMC veterinarian to determine how often your horses need fecal samples submitted.

The three steps listed above will decrease the amount of dewormer used, which will then decrease the number of worms exposed to a dewormer...this will decrease the chance of developing resistance.

### **PARASITE CONTROL:**

- Limit exposure to manure piles (more acres per horse and/or removal of manure piles from paddock). This limits the exposure to parasite eggs.
- Rotate pastures every 1-2 weeks and let pasture set 1 month before putting horses back on it. Hopefully, after 1 month in the sun, a good number of the eggs will have died from sun exposure (dragging the pasture to break up the manure piles helps get more sun exposure to parasite eggs).
- Rotate sheep, goats, or cattle (i.e. ruminants) on pasture before or after horses are on it. Horses and ruminants do not share the same parasites. Ruminant parasites will die when the horse eats them and vice versa.

### **BVMC PARASITE CONTROL RECOMMENDATIONS:**

- **Fecal egg counts prior to deworming.**
- Consult with a BVMC veterinarian to determine a good cost effective parasite control program.

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### **NEW PRODUCT INFORMATION:**

An informative brochure and article have been included in this mailing for Ulcergard and Equioxx. These products are administered orally with a typical deworming type paste syringe.

- **Ulcergard** (active ingredient is omeprazole) is used to prevent ulcers in stressed horses. Recent research has shown a high ulcer rate in high performance horses. Ulcers can cause horses to reduce feed intake and/or show signs of colic. Ulcergard is formulated to provide 4 days of drug therapy in each tube. The idea is one tube will get people through the average show, rodeo, etc. weekend (give 1 dose Fri, Sat, Sun, and Mon). Another use of Ulcergard is in conjunction with Bute or Banamine to prevent ulcer formation while on anti-inflammatories that are known to cause ulcers. Ulcergard is a once a day treatment and has little to no side effects.
- **Gastrogard** (active ingredient is omeprazole) is used to treat ulcers in horses already known to have an ulcer via visualization with a gastroscope. Treatment is quite successful. Typical signs of an ulcer include grain refusal and/or signs of colic.
- **Equioxx** (active ingredient is firocoxib) is a new anti-inflammatory product. It provides the same pain relief as Bute, but is much gentler on the stomach. Another great feature, pain relief is provided 30 minutes after oral administration. Horses will also appreciate Equioxx because it does not have the bitter taste like Bute. BVMC will now be recommending Equioxx for pain relief for the safety of your horse.

**www.brodheadvets.com**