



# Keswick Equine Clinic Spring Newsletter

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## De-worming: Who, When and with What

Variations in each horse's immune system and management situation should be reflected in its individual de-worming program. Many horses, especially if kept at an appropriate number of horses per acre, with good pasture maintenance, do not require de-worming every 2 months. Studies have shown that in most horse populations, 20% of the horses carry 80% of the parasite burden. These horses with high worm loads should be treated more frequently than those with a naturally high resistance to worms. To determine whether de-worming is necessary, fecal flotations should be performed 2 to 3 times a year. This test measures the number of parasite eggs being shed in the manure.

The appropriate time to take a fecal test is determined by the type of de-wormer last administered. Parasite eggs, which are being measured in the fecal flotation, are not shed for 4 - 6 weeks after de-worming with fenbendazole (Panacur) and pyrantals (Strongid), 8- 10 weeks after

De-wormer used	Weeks post-deworming to take sample
Fenbendazole (Panacur)	4-6 weeks
Pyrantal (Strongid)	4-6 weeks
Ivermectin	8-10 weeks
Moxidectin (Quest)	12-16 weeks

using an ivermectin product and 12 -16 weeks after moxidectin (Quest) administration. Samples should be taken 1 to 2 weeks after the horses are beginning to shed to determine the level of parasites still present.

By using the results of fecal flotations in the decision to de-worm, anti-parasite drugs can be used more effectively. This will result in less de-wormers being used, especially for those horses with a naturally high resistance to parasites. Horses that have a low parasite load

should still be de-wormed with an ivermectin product at least twice a year - preferably in the fall (September/October). This de-wormer will be timed to kill strongyles they picked up in spring and to kill any bots they ingested. A second de-worming with ivermectin or moxidectin can be performed, again after a fecal sample is submitted 9-10 weeks after de-worming with ivermectin, in December/January. Winter is also the best time to de-worm for tapeworms. The combination products of ivermectin/praziquantel (Equimax or Zimectrin Gold) and moxidectin/praziquantel (Quest Plus) are ideal for the winter de-worming. As the grass begins to grow in the spring, a fecal sample should be taken. Horses appropriately de-wormed with a high resistance to worms may not need to be de-wormed before being turned out on pasture. Horses with a high fecal count should be de-wormed for their own health and to ensure they do not contaminate the pasture. Fecal samples can be collected by us during spring and fall vaccines, or can be submitted to the clinic.

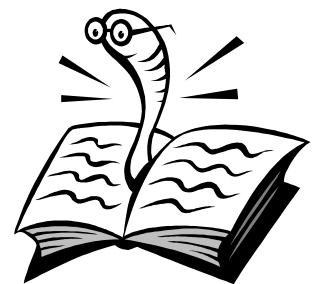
### Common de-wormers and their Brand names

- \* IVERMECTIN  
ZIMECTRIN®, IVER-CARE®, ROTECTIN® 1.87%, ETC.
- \* IVERMECTIN + PRAZIQUANTEL  
EQUIMAX®, ZIMECTRIN GOLD®
- \* MOXIDECTIN  
QUEST®
- \* MOXIDECTIN + PRAZIQUANTEL  
QUEST PLUS®
- \* FENBENDAZOLE  
PANACUR®, SAFE-GUARD®
- \* 5 DAY DOUBLE DOSE OF FENBENDAZOLE  
PANACUR POWER-PAC®
- \* PYRANTEL PAMOATE  
STRONGID®, ROTECTIN P®, STRONGYL-CARE PASTE®

Traditional de-worming program. Also used for horses who shed high numbers of eggs.	
De-wormer	Month
Fenbendazole	January/February
Ivermectin + Praziquantel	March/ April
Pyrantel Pamoate	May/June
Fenbendazole	July/August
Ivermectin	September/October
Ivermectin + Praziquantel	November/December

Modified de-worming program. Used for horses with low fecal egg counts.	
Action	Month
Submit fecal	March/April
Submit fecal + De-worm with ivermectin	September/October
Submit fecal + De-worm with Ivermectin + praziquantel Or Moxidectin + praziquantel	December/ January

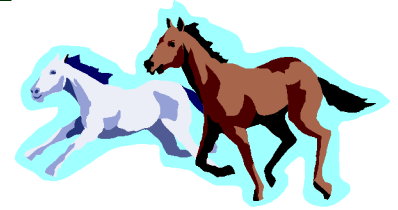
**Moxidectin** is a very effective de-wormer. However, due to its potency it is important to accurately de-worm according to weight. **We do not recommend this medication for foals, horses with an unknown de-worming history, geriatric or sick horses.**



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## What to expect...when your mare's expecting!

Congratulations! You had the good news last summer when your mare was confirmed. You administered pre-foaling vaccines and de-wormed with ivermectin 4-6 weeks before the anticipated foaling date. She has been off fescue for 60 days. If she is Cushinoid she has been off Pergolide for 30 days. Now when exactly is she going to foal? The honest answer is whenever she feels like it! We can estimate the foaling date using the normal duration of pregnancy of 335 to 342 days. Other signs of impending foaling include udder enlargement, waxing on teat ends and relaxation around the tail head, buttocks and lips of the vulva. Udder enlargement normally begins two weeks before foaling with waxing starting 24 to 48 hours prior to foaling.

Commercial test kits (such as FoalWatch) measure the concentration of calcium in pre-foaling milk. The calcium levels increase as the mare gets closer to foaling. These test are most useful in predicting that a mare is not going to foal in the next 24 hours—hopefully preventing unnecessary monitoring.

When your mare does decide to foal, the first stage of labor is often shown by the mare acting restless, sometimes looking like a mild colic. This behavior is due to the mare's uterus beginning to contract and position the foal for delivery. Once the water has broken, labor is an explosive event lasting around 20 minutes. If you are present for labor and your mare is actively straining for longer than 20 minutes, with no progress of delivery, it is time to intervene and call a veterinarian.

After the foal is delivered, remember the 1, 2, 3 rule. The foal should be standing by 1 hour, nursing by 2 hours and have passed its meconium by hour 3. A Fleet enema can be administered to encourage the foal to pass the meconium. A normal foal nurses approximately 6 times an hour.

The mare should pass the placenta soon after the foal is delivered. A placenta that is retained past 3 hours is a concern. This problem can sometimes be treated with oxytocin injections, however lavage of the uterus may be necessary. Please call the clinic for advice if your mare does retain her placenta past 3 hours.

De-worming the mare with an ivermectin product within 24 hours after foaling is recommended. This decreases the transmission of parasites from mare to foal.

The umbilicus should be dipped with a dilute chlorhexidine solution. This can be repeated 3-4 times a day for the first few days of life, or until the umbilicus is dry.

A newborn foal does not have any innate protection against the bacteria and viruses present in it's environment. It receives all of its protection from the anti-bodies in the mare's colostrum. To ensure the foal has received enough colostrum, we recommend a blood test approximately 12 to 24 hours after the foal has first nursed, depending on the health of the foal. This test is performed on the farm and measures the levels of anti-bodies present in the foal blood. This transmission of immune factors from mare to foal only occurs during the first twelve hours of the foals life. This is when the gut is open and able to absorb the anti-bodies from the colostrum. This is why it is so important the foal starts nursing in a timely manner. The first 24 hours after foaling is an excellent time for us to examine the mare and foal to ensure they are healthy and happy. A placenta exam can also be done at this time—so remember to keep it for us. Please call the clinic when your mare has foaled to set up an appointment.

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## Highlights from the 2007 Conference of American Association of Equine Practitioners

Researchers from Colorado State University compared the response of horses affected with experimentally induced carpus (knee) arthritis using a topical anti-inflammatory cream (Surpass®) compared with oral phenylbutazone or no treatment. The best response in lameness scores was obtained with the Surpass® compared to bute or no treatment. The ointment also has the advantage of decreased systemic side effects compared to bute. It should be noted that this study was funded by the makers of Surpass®.

A study from Texas A & M looked at the effect of feeding alfalfa hay compared to coastal Bermuda hay on gastric ulcers. 92% of yearlings fed alfalfa hay did not develop gastric ulcers or had improvement in gastric ulcers compared to 25% of those fed coastal Bermuda hay. Both groups were fed equivalent amounts of 15% protein concentrate feed and exercised 3 times a week on a mechanical walker. It was suggested alfalfa hay reduces the acidity of the equine stomach, decreasing the severity of ulcers.

## What is a "Fescue Foal"?

With foaling season here, you may have heard the term "fescue foal". This term refers to the syndrome of prolonged pregnancy, thickened placenta and lack of milk production that can affect late term pregnant mares grazing fescue or being fed fescue hay. The fescue plant itself is not the problem rather the endophyte, or internal plant fungus is the cause for concern. This endophyte makes the grass harder in drought conditions, but also produce alkaloids that

interfere with normal pregnancy and foaling. Endophyte infected fescue is present everywhere in Virginia— especially with the dry summers of past years.

One warning sign that your mare may be affected with fescue toxicity is lack of "bagging up" or udder development as she approaches foaling. A mare foaling with no milk is a disaster as the colostrum is essential for the health and survival of the foal. To prevent any problems with fescue, we recom-

mend removing mares from fescue pasture and feeding non-fescue hay for 60 to 90 days prior to foaling. There is also a drug, domperidone, that is administered to counteract the effects of the fescue and allow milk production in the mare. This drug should be administered for 14 days prior to the expected foaling date.

With some forward planning and knowledge the tragedy of a fescue foal can be avoided.



Keep in mind that 70% of mares foal between 10pm and 2 am!

## Foal vaccine and deworming schedule

Immunity transferred to the foal from colostrum begins waning around 4- 5 months of age. We recommend beginning vaccinations at this age to ensure the foal is properly protected by the vaccines as the maternal anti-bodies are declining. The schedule outlined below is for foals born from properly vaccinated mares. Foals born from unvaccinated mares can and should be vaccinated earlier—starting as early as 1 month of age.

Due to their high susceptibility to parasites, foals should be de-wormed once a month for the first 12 months. As yearlings they can be placed on an adult rotational de-worming program.

Age	Vaccine
5 months	Tetanus, Potomac Horse Fever Eastern and Western Encephalitis Rhinopneumonitis/ Influenza West Nile Virus Rabies
6 months	Tetanus, Potomac Horse Fever Eastern and Western Encephalitis Rhinopneumonitis/ Influenza West Nile Virus Rabies
7 months	Tetanus, Potomac Horse Fever Eastern and Western Encephalitis Rhinopneumonitis/ Influenza West Nile Virus Rabies

Age	De-wormer	Age	De-wormer
4 weeks	Fenbendazole	28 weeks	Ivermectin
8 weeks	Pyrantel pamoate	32 weeks	Fenbendazole
12 weeks	Fenbendazole	36 weeks	Ivermectin + praziquantel
16 weeks	Pyrantel pamoate	40 weeks	Ivermectin
20 weeks	Ivermectin + Praziquantel	44 weeks	Pyrantel
24 weeks	Pyrantel pamoate	48 weeks	Fenbendazole 5 day Double dose

## Foxtail



Foxtail is a grass that has a barbed seedhead.

Found in hay and growing in marshy areas, these seed heads can dig into horse's gums. Foxtail can cause sores and small abscesses in the gums and the resulting discomfort can cause the horse to salivate and even be reluctant to eat. Avoid hay that contains foxtail and keep pastures mowed to avoid problems with this grass.

## Digital x-rays

We are happy to offer digital x-rays, using the **IDEXX Digital Radiography System**. Digital x-rays (or "radiographs") are taken on a capture screen that is converted to a digital image, rather than using traditional x-ray film. The radiographs are displayed on the lap-top screen and can be viewed seconds after the shot is taken. Digital radiographs produce a higher quality



image than traditional radiograph, as well as allowing a preliminary viewing of radiographs on the farm. These pictures can be also burnt to a CD, allowing you to have a record of the x-rays.

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# New Additions to Keswick Equine Clinic

Dr. Martha Mellish is a 2005 graduate of the Atlantic Veterinary College located in her native Prince Edward Island, Canada. After moving to Virginia and completing an equine internship at Woodside Equine Clinic, she then practiced in the Shenandoah Valley. Deciding that Virginia wasn't quite hot enough, she then worked at an equine practice in western Australia for 6 months before joining Keswick Equine Clinic as an associate veterinarian. Dr. Mellish's veterinary interests include reproduction and lameness.

Dressage is Dr. Mellish's equine sport of choice, having competed up to the Young Rider level. She is currently learning about young horse training on her 5 year old Dutch Warmblood. When not spending time with horses, Dr. Mellish enjoys hiking with her boyfriend, who is also a veterinarian.

Marci Clowney relocated to Virginia, taking an office staff position at Keswick Equine Clinic in January of 2008 and hasn't looked back! She was born in Eastern Pennsylvania where she grew up volunteering at the Devon Horse Show and only left home to attend Averett University. A move to South Carolina brought some great experience with two well known 3 day eventers. From there, Marci went on a world wide adventure when she ran away and joined the circus which eventually led to travelling with Cirque du Soleil on their Asia- Pacific tour. Despite her travels, Marci has always found time for horses, even in the heart of Sydney, Australia. Marci and her son Ayjai, are looking forward to exploring all that Virginia has to offer.

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We're on the web: [www.keswickequineclinic.com](http://www.keswickequineclinic.com)

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