



DR. JIM NUTT-OUR NEW EQUINE SURGEON

Dr. Jim Nutt VMD, ACVS has been on the team at Rhinebeck Equine since April, and has met many of you and your horses already. Dr. Nutt, a native of Pennsylvania, attained his board certification in equine surgery. He has worked at Hagyard Equine Medical Institute in KY, the University of Pennsylvania at the New Bolton Center, North Carolina State University Veterinary Hospital, as well as at Peninsula Equine in California. He has a strong foundation in sports medicine and diagnostic imaging, including nuclear scintigraphy and MRI. Dr. Nutt particularly enjoys the challenges of colic surgery, fracture repair and arthroscopy, and has a special interest in laparoscopy and sports medicine. His areas of research while at the university included complicated fracture repair, transfixation casts, and external fixation. In his spare time, he enjoys hiking, hunting and fishing, dog training, and falconry.

Dr. Nutt is available for outpatient appointments, elective surgeries and surgical and medical emergencies at the hospital. In addition, he will be making farm visits for prepurchase exams, lameness evaluations, and surgical consultations. He will also provide musculoskeletal evaluation of young stock by special arrangement. Please call the office to schedule an appointment with Dr. Nutt, and please join us in welcoming him to the Hudson Valley.

NEW ADVENTURES FOR DRs. FINE, KARASEK AND VANWINKLE

Time has flown for our 2009-2010 interns, and as we bid them goodbye, we have many happy memories of their time with us. Many of you have had the chance to work with them, and will miss their cheerful and meticulous care of your horses. Dr. Whitney VanWinkle has returned to her beloved Florida to work with sport and show horses as a solo practitioner. Dr. Inga Karasek has gone on to a position as an associate veterinarian in Ontario, Canada. Dr. Megan Fine will be working for Rhinebeck Equine as an associate through October. We will miss them all!!

Paul C. Mountan, DVM

James D. Mort, DVM

Jeffrey A. Williams, DVM

Amy L. Grice, VMD

Nina Deibel, DVM



Rhinebeck Equine, L.L.P.

A Lifetime of Caring

Lance H. Bassage, II, VMD, DACVS

Andrea Sotela, DVM

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NEW APPROACHES TO CONTROLLING INTERNAL PARASITES: TARGETED DEWORMING STRATEGIES



WHY WORRY ABOUT PARASITES?

Internal parasites ("worms") can cause unthriftiness, weight loss, colic, diarrhea and even death. Heavy worm burdens can cause lowered resistance to disease and infections due to weakening of the immune system, loss of nutrients, and organ damage from larval migration and presence of large numbers of adult parasites in the bowel. It is impossible to eliminate all internal parasites, but they can usually be well controlled.

LIFE CYCLE OF INTERNAL PARASITES:

Eggs or larvae are passed into the environment in the manure of infected horses. These eggs or larvae develop in the environment, and are then ingested by the horse, usually by grazing. Larvae mature in the digestive tract of the horse; some migrate through the body tissues before returning to the GI tract as adults. Adults then produce eggs, and the cycle continues.

WHY DO WE NEED A NEW APPROACH?

Widespread use of dewormers has led to the development of resistant populations of parasites. In the South this is very common. In the Northeast it is less common, but with so many horses travelling, it is only a matter of time before these resistant populations arrive here. Without the development of new deworming medications, internal parasites will become a serious problem as our current dewormers lose effectiveness. Because of this, we must work diligently to preserve the effectiveness of the dewormers we currently have. It is therefore imperative that we use all dewormers carefully and thoughtfully. Most importantly, we should NOT be deworming horses that have little to no worm burdens. In order to prevent resistance in our area, we must:

- Know which parasites we are targeting
- Use a product that is effective against the parasites we are targeting
- Don't deworm horses that have minimal parasites
- Perform fecal egg counts regularly

FECAL EGG COUNTS (FEC):

To have a fecal egg count performed, you submit two fecal balls (fresh within 24 hours) to our office. You should be sure to refrigerate the

sample after collection, and avoid extremes of heat and cold during the time you are transporting the sample to our office (e.g. don't leave the sample on the dashboard of your car.) Your results will be available within 48-72 hours. A fecal egg count should be performed at any time of the year when weight loss, diarrhea, or other signs of debilitation occur. Fecal exams will NOT show the presence of encysted small strongyle larvae or tapeworms. Fecal samples should generally be taken 10-12 weeks after the last deworming was given. The exception to this is when a FEC is performed to check resistance to a particular dewormer; samples are then submitted two weeks after deworming. The results are reported in eggs per gram of feces. The fecal egg count (FEC) will allow a targeted deworming strategy for your horse to be developed with your veterinarian. Horses with few eggs will be dewormed differently than those with high egg counts. Some horses have an innate immunity to parasites, while others are high shedders of eggs throughout their lifetimes despite frequent deworming. A FEC will help us determine the best approach for each horse.

- Horses with egg counts below 200 eggs/gram are considered essentially "negative"
- Horses with egg counts between 200-400 are considered low shedders
- Horses with egg counts between 400-600 are considered moderate shedders
- Horses with egg counts above 600 are considered high shedders
- Egg counts above 1000 eggs/gram are considered very high

TYPES OF INTERNAL PARASITES:

The most important intestinal parasites (worms) are **small strongyles**, **ascarids** (roundworms), and **tape worms**. All parasites have life cycles with multiple stages of development- eggs, larvae of several types, and adults. The larvae are generally responsible for the majority of the damage done, because they migrate through the tissues and organs of the body, leaving scar tissue behind. Adults can cause poor condition due to competition for nutrients.

RESISTANCE TO DEWORMERS: NOT ALL ARE STILL EFFECTIVE

In our area of the Northeast, there are four dewormers that are still generally effective. Unfortunately, other areas of the country have recently seen significant resistance developing, and with the frequent movement of horses, it is only a matter of time before resistance patterns emerge in our area. New dewormers are not expected to be available for 8-10 years in this country. It is therefore imperative that we use all dewormers carefully and thoughtfully. **Most importantly,**

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26 Losee Lane • Rhinebeck, New York 12572

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Rhinebeck Equine, L.L.P.

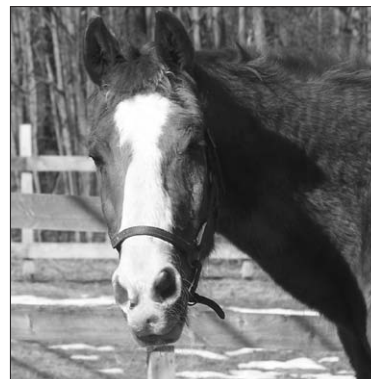


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we should NOT be deworming horses that have little to no worm burdens. Some premises may develop resistance patterns related to the population of horses that reside there, and where those horses have travelled to or originated from. **Use of a FEC two weeks after deworming can be useful to determine if resistance is developing.**

DEWORMING SCHEDULES:

Many of you ask about **appropriate deworming schedules.** **The most effective way to determine the number of worms your horse is carrying and the appropriate deworming strategy is to have a fecal egg count performed by our office.** Once your horse's fecal egg count is determined, a deworming strategy can be developed with your veterinarian. **Over the first year of determining the shedding status of your horses, your deworming strategy may change. Consult your veterinarian.**



Category	FEC	April	May	June	July	Aug	Sept	Oct	Nov
Negative	0-200		FEC			FEC			MP or IP
Low	200-400		FEC I or M			FEC			FEC MP or IP
Moderate	400-600		FEC I or M			FEC P or O			FEC MP or IP
High	>600	FEC I or M		I	FEC	P or O		FEC I	MP or IP
Very High	>1000	FEC I or M	PP	P or O	FEC I	P or O	I	FEC	MP or IP

FEC=Fecal Egg Count I=Ivermectin M=Moxidectin P=Pyrantel O=Oxibendazole MP=Moxidectin/Praziquantel
IP=Ivermectin/Praziquantel PP=Panacur Power Pac

Horses that are pastured together should ideally be separated into groups according to their shedding status, so that high shedders are not contaminating pastures where negative horses graze. In situations where this is impractical, the use of daily low dose pyrantel pamoate (e.g. Strongid C) is a choice. It can also be very useful in situations where overcrowding is unavoidable and contamination inevitable. Some of our clients choose to use daily dewormer with their young stock to ensure optimum growth. Horses with heavy small strongyle infestations manifesting clinical signs of weight loss, diarrhea and poor hair coats may show dramatic improvement after treatment with daily dewormer for 90 days especially following larvicidal deworming with moxidectin or double doses of fenbendazole, as prescribed by a veterinarian. However, **it is imperative that FEC be assessed to be sure that no resistance to the daily dewormer has developed.**

DEWORMING FOR FOALS:

Foals are very vulnerable to the effects of ascarids, which are developing resistance to dewormers at a frightening pace. Some exposure to parasites is essential for the development of immunity, but significant health problems can develop if foals are heavily parasitized. Foals explore their environment and ingest many ascarid eggs. The eggs develop into larvae which migrate through the liver and lungs, then are coughed up and swallowed to develop into adults in the intestine. Unthriftiness, poor growth, pot bellied appearance, and pneumonia can result. Large numbers of adult ascarids can fill the intestine and cause colic and death.

Foals should be dewormed every 30 days beginning when they are 30 days of age, until they are 1 year old. This is the single most important thing you can do to ensure their good health and long life. Begin with a double dose of fenbendazole for months 1 & 2, then alternate single dose pyrantel pamoate, single dose of ivermectin, and double dose fenbendazole on a monthly basis. Ivermectin with praziquantel should be administered after a hard frost in the fall of the youngster's first year.

SAMPLE DEWORMING SCHEDULE FOR FOALS:

1 month	Double dose fenbendazole (e.g. Panacur, Safeguard)
2 months	Double dose fenbendazole (e.g. Panacur, Safeguard)
3 months	Pyrantel pamoate (e.g. Strongid)
4 months	Ivermectin (e.g. Eqvalan, Zimectrin, Equell)
5 months	Double dose fenbendazole (e.g. Panacur, Safeguard)
6 months	Pyrantel pamoate (e.g. Strongid), Quantitative fecal test (FEC)
7 months	Ivermectin (e.g. Eqvalan, Zimectrin, Equell)

Continue rotation until 12 months of age, substituting Ivermectin + praziquantel (e.g. Equimax, Zimectrin Gold) in November of the year of birth.

OTHER MANAGEMENT STRATEGIES:

- Remove manure from pastures regularly
- If you drag pastures, do it when it is hot and dry, then leave horses off the field for at least a week
- Rotational graze with other species if possible
- Reduce pasture density to minimize over grazing
- Submit a fecal and deworm all new horses with ivermectin before adding them to your pasture

Internal parasites are a leading cause of colic and unthriftiness in horses. Fortunately, much is understood about parasite control and strategies to minimize their deleterious effects. Please do not hesitate to contact our office with your questions.

Full text of this document is available by e-mail from Liz by e-mailing her at liz@rhinebeckequine.com

NEW INTERNS BEGAN JUNE 7TH

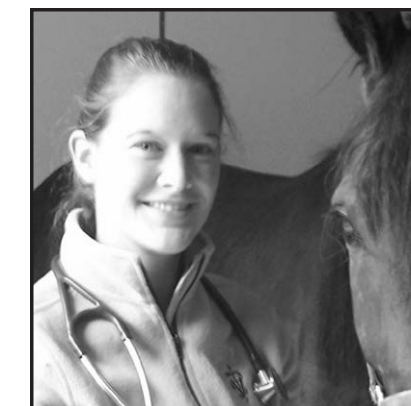
Our 2010-2011 interns began their year with us on Monday, June 7th, and come to us from several parts of North America.



Dr. Amie Rennie graduated from the University Of Michigan School Of Veterinary Medicine. She hopes to pursue further training and board certification in Internal Medicine, or Emergency and Critical Care after her internship. An avid cross country skier and cross country runner, she competed at a collegiate level. Dr. Rennie rode hunter/jumpers as a teen. She currently has two beautiful German Shepherds.



Dr. Kathleen Laux grew up in Westchester County, and attended the Cornell University College of Veterinary Medicine. As a veterinary student she was a member of the Colic Team, assisting in the care of medical and surgical emergencies. She also has a strong interest in lameness, and wishes to pursue a residency in equine surgery after completion of her internship. She is married, and enjoys riding across the countryside on her Polish Arabian with her husband and dog running alongside.



Dr. Erika Latham grew up in Minnesota, and participated in an intensive program while in high school that allowed her to work extensively with Dr. Tracy Turner, a pioneer in lameness evaluation. She attended Tufts Cummings School of Veterinary Medicine, where she continued shaping her interest in sports medicine and surgery. In the future Dr. Latham would like to earn a specialty degree in equine surgery. She has an avid interest in Argentine Tango, and dances as frequently as her schedule allows. Married just a month ago, her husband is completing his PhD at MIT.

Over the coming year you will have the opportunity to meet all of these talented young veterinarians as they rotate duties through the hospital and on ambulatory calls.

EQUINE HEALTH CLASSES TO BE HELD THIS FALL:

A series of classes on various equine health topics will be held this fall, taught by Dr. Amy Grice. Enrollment will be limited. Currently the classes are tentatively scheduled for Saturday mornings. Topics will include: Nutrition and Feeding; Parasites and Deworming Strategies; Routine Health Maintenance; Lameness Diagnosis and Treatment; Conformation: Form and Function; Emergencies; Care of the Older Horse; Colic; Laminitis; Pregnancy and Foaling; Foal Care. Those interested will have an opportunity to enroll for the entire series at a reduced tuition, or enroll in single sessions if space allows.

Please call or e-mail Jeannie at extension 1023 or Jeannie@rhinebeckequine.com if you are interested in receiving more information as the details of this program become available.

WHY IS MY HORSE SLOBBERING?

We have been seeing many horses affected by "slobbers" recently, a common condition that results from ingestion of clover infected with the fungus, *Rhizoctonia leguminicola*. This fungus produces a mycotoxin called slaframine that causes excessive salivation, lacrimation ("tearing"), and occasionally soft manure. The toxin can be present both in pasture and in dried hay. In hay the toxicity decreases steadily and is effectively eliminated 10 months after baling. No treatment is necessary, but administration of electrolytes may be helpful to correct losses from excessive salivation.

POTOMAC HORSE FEVER CASES ON THE RISE

Recently we have been seeing particularly severe cases of Potomac Horse Fever, with profoundly low calcium and protein levels, electrolyte disturbances, and dehydration. Secondary laminitis can be severe and life threatening. Please be attentive to your horse's appetite and attitude. Dullness, poor appetite and fever are the most common signs of PHF. Diarrhea occurs in just 20-30% of cases. Waiting several days to see if your horse improves on his own could make the difference between life and death.

Potomac Horse Fever is associated with hatches of aquatic insects which harbor a fluke with the causative organism. Horses ingest the organism when the insects die in the grass of pasture, are eaten or baled in hay, or swarm near lights outside of barns before dying in areas where horses feed.

Treatment can be intensive, with intravenous fluids and antibiotics, and is generally successful, but the earlier treatment begins, the more likely full recovery will be achieved without secondary complications.

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