DEWORMING YOUR HORSE: TAKE 2

TheHorse.com: Welcome to the webinar! We’ll be starting the live Q&A in just a few minutes.

TheHorse.com: Hello everyone, and welcome to our Webinar on Deworming Your Horse. We’d like to introduce tonight’s presenter, Craig Reinemeyer, DVM, PhD, equine researcher and president of East Tennessee Clinical Research. Dr. Reinemeyer will be answering your questions during this live event along with Wendy Vaala, DVM, Dipl. ACVIM, Intervet Schering-Plough equine technical services specialist. We’d also like to offer thanks to sponsor Intervet Schering-Plough Animal Health for bringing you this free event. Visit them online at www.getrotationright.com.

Wendy Vaala: Young horses (foals, weanlings, yearlings, 2-yr olds) are generally more susceptible to most parasites. Drug resistant parasites often appear in the younger animals first. Dewormers may not have as long a duration of effect (also known as egg reappearance period) in younger animals. So a deworming program for youngsters should address all the major equine parasites with a focus on the most deadly – which is Parascaris equorum – the roundworm. Use fecal egg count reduction testing to determine which drugs are working on your farm.

Ascarids (e.g., roundworms) have begun to show resistance to certain dewormers, most notably the macrocyclic lactones (ivermectin, moxidectin or Quest). Round worm eggs can persist in the environment for up to 10 years and can resist freezing and hot temperatures. The goal is to prevent your farm from becoming contaminated with drug resistant roundworms while keeping other equine parasites under control. Farms that have a problem with resistant roundworms often have a common history of beginning to deworm foals at a very young age (<2wks of age), deworming at very frequent intervals (often every 30 days) and using the same drug over and over again (usually ivermectin).

I recommend deworming your mare post foaling. Keep manure picked up around the foaling stall and mare / foal paddocks. Wait to deworm your foal until at least 60 – 70 days of age. In foals < 6 - 7 months of age use only drugs known to be effective vs roundworms on your farm. Use fenbendazole (Panacur – double the horse dose is used in foals), Pyrantel (Strongid), and Ivermectin if it is still effective. Do not deworm foals more frequently than every 60 – 70 days. Consider a 5-day double dose of Panacur for foals at or before weaning and for all new arrivals on the farm. Include a treatment effective for tapeworms for older weanlings and yearlings.

TheHorse.com: We received many questions for this event ahead of time and we’ll get to as many questions as we can, so we’d like to ask that you hold any further questions until we get through the ones we have; a question similar to yours may already have been asked. Also, please note that we can’t address questions that are specific to a particular horse, but we are happy to discuss general questions about this topic.

TheHorse.com: (Question from Victoria/Birgitta/Christine) What is possible with natural alternatives to
chemical deworming? Will feeding garlic, which helps keeps my horses from being eaten by flies, help with parasites? Are you looking into grape seed extract? What about resistance to herbals?

**Wendy Vaala:** I am not aware of many scientific studies that have examined the efficacy of natural alternatives. Plants high in tannins have been shown to have some anti-parasiticidal activity in sheep and cattle. I am not aware of any studies in horses. Whenever considering the use of a “natural” product or herbal supplement, always ask to see hard data, not just anecdotal reports of efficacy. The one natural alternative that might hold promise for the horse is the use of a beneficial fungus, Duddingtonia flagrans, that when fed to horses, sheep, goats, or cattle, passes through into the feces where the fungus ingests and kills parasite eggs. I do not know about any research about using grapeseed extract or garlic for preventing parasites in horses.

**TheHorse.com:** (Question from Sandy) Will using daily dewormer (2.11% pyrantel) build resistance to this drug?

**Dr. Craig Reinemeyer:** Sandy, Frequent use of any dewormer carries the risk of resistance, but I think your plan to use the daily products only during the main season of transmission (spring thru autumn in the north; autumn thru spring in the south) is very positive. Daily products can provide some additional benefit because they kill worms daily as they are acquired from pasture. All the “purge” type products are given at some point after the parasite has been allowed to invade tissues, cause damage, and theoretically rob your horse of protein that it ought to be using to build muscle and bone.

Human nature, though, often assumes that if “some” is good, then “more” is better. You may have to select a body condition at which your horse is acceptable, without shooting for more condition or “sheen”. The harder you push the worms, the more likely that resistance will result. Good luck. CRR

**TheHorse.com:** (Question from Carrie) I would be interested in hearing recommendations on how to start shifting a client from the common every 6-8 week deworming to the recent recommendations....i.e., do they start with fecal egg counts? Do they start with testing each drug?

**Wendy Vaala:** The first step is to identify which of the adult horses are the high shedders – ie those that are shedding high numbers of strongyle eggs and contaminating the pasture and paddocks for the rest of the herd. To identify shedding status you will need to submit a fecal sample after waiting a suitable period of time since your horse was last dewormed.

Wait > 4 months after using Quest (Moxidectin)

Wait > 3 months after using Ivermectin

Wait > 9 wks after using Panacur or Strongid paste

High shedders often will require more frequent and different drug treatments than the low shedders which are naturally more resistant to strongyles. High shedders may receive 4 – 6 treatments per year while low shedders may require only 2.

The next step is to determine which drug classes are still working on your farm. Collect a fecal sample before your next deworming treatment. Deworm your horses. Collect a fecal 10 – 14 days after deworming. Compare the egg counts in the pre and post treatment samples. Ivermectin and Quest should reduce egg counts by > 95 – 98%; Panacur and Strongid should reduce egg counts by > 90%.

Design a program with your veterinarian since different climates, different management conditions will...
affect which deworming program is most effective. Avoid using unnecessary drug treatments when parasite transmission is low – ie during hot, dry summers and cold winters. It is a process and fecals should be used as needed.

**TheHorse.com:** (Question from Amanda) How effective is daily feed through wormer with a tape worm preventative paste 2 x a year? How long can a horse be on this program?

**Dr. Craig Reinemeyer:** Amanda, See some prior comments to “Sandy”. There is little need to maintain horses on daily dewormers throughout the entire year because the risk of infection (i.e., the availability of larvae on pasture) is strictly seasonal everywhere in the U.S. If you’re treating twice annually for tapeworms, you might want to alternate between double dose pyrantel pamoate and something containing praziquantel, along with ivermectin or moxidectin. CRR

**TheHorse.com:** (Question from Mike) Is the fecal count effective in isolating a particular parasite? I also understand that it is nearly impossible to rid an equine of all parasites but effective control is the desired goal. Is this correct?

**Wendy Vaala:** Most fecal exams will detect large and small strongyle and ascarid (round worm) eggs. Some fecal techniques will detect some tapeworm eggs, but a negative fecal does not rule out tapeworm infection. Pinworm eggs may be missed because they are deposited around the rectum rather than deposited in the feces. Fecals will not detect prepatent infections (i.e. will not detect how many juvenile or immature parasites are in the horse) or encysted small strongyles.

You are correct that the goal is not to rid the horse of all parasites – virtually impossible and not reasonable. Our goal is to decrease environmental contamination (i.e. prevent or reduce egg shedding) and prevent disease in the horse caused by certain stages of parasites, usually the immature stages.

**TheHorse.com:** (Question from Sue) I understand that “Ivermectin” is now owned/produced by China. Can we trust the integrity of this product coming out of China?

**Dr. Craig Reinemeyer:** Sue, Welcome to the 21st century of pharmaceutical manufacturing. Many modern veterinary drugs undoubtedly are being manufactured overseas. Regardless, the sponsoring company, under whose label the product is marketed in the U.S., bears responsibility for ensuring the purity of products which they sell, and that the contents are consistent with the label description. Unfortunately, the FDA doesn’t have the man-power to inspect all animal drugs intensely, so quality control is left to the manufacturer. Personally, I’m not too concerned about the quality control issues, but some manufacturers like to play this card against their generic competition. CRR

**Comment From Dr. Sergio Yong:** Some products of intervet not found in Mexico, Why?

**Wendy Vaala:** All pharmaceuticals, including dewormers, must be licensed separately in each country. Sometimes a company chooses not to file for a license for specific drug or different forms of the drug in a given country. Different countries have different needs and different market sizes. All of those factors affect which products are licensed in which countries.

**TheHorse.com:** (Question from Deb) Lately I’ve been seeing advertisements for diatomaceous earth used topically and/or internally in animals and I’m interested in trying it. However, if it’s abrasive enough to destroy internal & external parasites, wouldn’t it also be abrasive to skin or mucous membranes? I’m concerned that it might act like asbestos in the body. What do you think?

**Wendy Vaala:** This product does not have any published scientific data to support its efficacy in horses.
Most of the reports I have read are simply anecdotal information. I can not recommend its use in place of tried and true, licensed dewormers coupled with good, sound management practices such as not overstocking, rotating or resting pastures, composting manure to kill parasites, and monitoring your program with the help of fecal exams.

TheHorse.com: (Question from Peter) I would like to know if the Vet recommends a different dose strategy for mules, or simply follow the horse weight dosing guidelines? Also how toxic to fish and domestic animals is the wormer medication AFTER it passes through the equine?

Dr. Craig Reinemeyer: Peter, To be scientifically rigorous, I don’t think anyone has done sufficient work with mules to determine whether they handle any drugs (including dewormers) differently than horses. That’s why you don’t see them as approved species on the product labels. This type of research is called pharmacokinetics, and it looks at concentrations of the drug in the blood at various intervals after administration. Even though they are all ruminants, pharmacokinetic research has demonstrated that cattle, sheep, and goats all handle certain drugs quite differently, so you can’t extrapolate a cattle dose of a product to goats and expect it to be effective, and you may not even be able to assume that it will be safe.

So, in the total absence of any evidence whatsoever, I think it’s logical to dose mules the same as domestic horses. None of the currently marketed products are very toxic, so feel free to overdose a little if you can afford it. While we’re on the topic, ivermectin resistance has been reported in small strongyles of donkeys, but I’m very uncomfortable with that conclusion because ivermectin has never been approved for use in donkeys. How do we know if we’re dosing them correctly? Hang tough, CRR

Dr. Craig Reinemeyer: Charles/Gayle/Laurie, This would take too much time at present, but feel free to contact me privately and I’ll do my best to steer you toward cheap, effective substitutes. Good luck. CRR crr@easttenncr.com

TheHorse.com: (Charles, Gayle, and Laurie asked about guidelines/references for doing fecal egg count testing themselves.)

TheHorse.com: (Question from Peggy) What would be a reasonable schedule for worming horses kept in dirt pens in hot, dry Arizona?

Dr. Craig Reinemeyer: Peggy, Your horses live in an environment that is very unhealthy for worms. Too hot and dry for successful development of many infective larvae, and the ones that do make it won’t survive for more than a few weeks. I think I would base any deworming decisions on the magnitude of fecal egg counts, checked twice yearly. Don’t deworm unless the egg counts exceed 250 eggs per gram.

TheHorse.com: We’re still working our way through questions that were sent in before the event. Thanks for your patience! :-)

TheHorse.com: (Question from Glenda) 1. What is the recommendation for how often to fecal test? (Question from Glenda) 2. Is there a preferred time of year for testing, and does that vary with region? (Question from Glenda) 3. Does the fecal testing recommendation vary with the make up of the herd?

Wendy Vaala: Fecal testing should be performed when indicated rather than random sampling. Fecals should be performed to answer questions such as “Is this horse a high or low egg shedder?” “Is this dewormer still working?” Some high shedders may need to be tested more often. Newcomers to a farm
should have fecals performed.

Fecals are usually performed during periods of the year when parasites are being transmitted and not as often during the low transmission periods such as hot dry summers and cold, white winters. Horses that are showing signs that may be due to parasites would also be candidates for a fecal.

Deworming strategies vary by season, region, farm management and ages of horses. In temperate climates we concentrate treatments during spring, summer and fall. In the south we tend to focus on deworming during fall winter and spring.

Younger horses (<2yr of age) tend to have higher parasite burdens and drugs tend to have a shorter duration of effect (shorter ERP). Ifoals need to be on a more regular deworming interval due to the threat of ascarids. Drugs such as ivermectin may not be as effective against roundworms on some breeding operations if that drug has been used extensively in the past.

In a herd of adult horses I would identify the high shedders and develop a program to control their pasture contamination. Low shedders may only need treatment 2-3 times a year.

Unless you have expertise in running fecals, I recommend submitting a fecal to your vet for analysis and recommendations.

**TheHorse.com:** (Question from Mel) There seems to be significant confusion amongst horse owners as to what “rotating your wormers to prevent resistance” actually ought to entail. Can you please provide guidelines on which classes of wormer to use in which season and at what frequency in order to minimise the ‘progress’ of worm resistance to chemical wormers. Also, what animal husbandry practices do you consider the most important adjuncts to oral worming; which practices enable the frequency of use of chemical wormers to be minimised?

**Dr. Craig Reinemeyer:** Mel, I hate to admit it, but there’s terribly little research to indicate that rotation actually decreases the onset of resistance. In fact, one school of thought recommends that a product should be used exclusively until it fails, and then switch to something else. Regardless, most horse owners are likely to find themselves fighting resistance that already exists, so the best recommendation is to do fecal egg count reduction testing, as mentioned in the webinar, to determine which deworming classes are still effective in your herd.

Undoubtedly, the most beneficial management practice is manure removal. The cycle of parasitism begins when the worm eggs pass in the feces of the host. Once larvae develop and migrate from the manure pile to the pasture grasses, the battle is over unless horses are prevented from grazing. 20 years ago, it was demonstrated in the U.K. that vacuuming horse pastures twice weekly with a commercial vacuum cleaner made for golf courses was far more effective at reducing parasitism than any deworming program. Most of us can’t afford a “fairway sucker”, and they only work if your pastures are flat and level like a living room floor. Regardless, sending your teenager out with a broom and scoop shovel twice a week can yield many benefits. Tell him/her to look at the bright side. In this economy, not many folks can say that their business is picking up. CRR

**TheHorse.com:** (Question from Karen) I have been experimenting with the use of burdock as a deworming agent. On the advice of an herbalist, I dig burdock roots up and, with the new leaves, cook them until I have a tea, then put it on the horses’ feed. It seems to work. I have poop tests done afterwards, and they’ve always come up clean. What do you think?

**Wendy Vaala:** I am not aware any critical studies examining the use of burdock as a dewormer in horses.
IN cattle, sheep and goats there are some plants that have been documented to have anti-parasiticidal properties. Many of these plants are high in tannins. I wonder if your horses might be naturally low shedders and would continue to have low fecal egg counts even without the burdock tea.

TheHorse.com: (Questions from Kristie/Sasha on pinworms) I give my horses dewormer every 6 to 7 weeks, and rotate active ingredients on a regular basis. I have a mare though that keeps scratching her rear end, can that be pin worms?

Comment From Dr. Carrie Niederman: Do you do your test to determine level of shedding during peak shedding time [ie..fall to spring in the South]?

Dr. Craig Reinemeyer: Kristie, and Sasha: It’s possible that your horse has pinworms, but there are other reasons why a horse might rub its rear end. The problem is, pinworms are the most common cause, but it is very difficult to prove that they are present. Thus, when you deworm for them and the horse continues to rub, the common assumption is that the product failed. However, it’s possible that the initial diagnosis was incorrect.

We recently ran some controlled tests with pyrantel pamaote and ivermectin against pinworms, and found them to be just as effective as when they were first marketed about 40 and 25 years ago, respectively. However, the populations of pinworms on your farm might be different. It is important to realize that no dewormer was ever 100% effective against pinworms. Regardless, no one has definitely demonstrated resistance of pinworms to any dewormer.

Sasha asked about larvicidal efficacy, and I performed the study that she refers to. Actually, we did measure larvicidal efficacy in that study, and both products were over 99% effective, which frankly amazed me. If you suspect that either pyrantel or ivermectin are failing against pinworms, you could switch to a benzimidazole such as Panacur (fenbendazole) or Anthelcide E.Q. (oxibendazole).

Wendy Vaala: Hi Carrie! I compromise and prefer to test for shedding status towards the beginning of the period of increasing transmission. Since to perform that test properly you need to allow a relatively long time to elapse since the last deworming, I worry that very susceptible horses (ie high shedders) may accumulate significant egg burdens if they are not treated for 3 - 4 months during peak transmission times. I would use your best judgement. Shedding status applies to horses > 3 yrs of age.

TheHorse.com: (Question from Randy/Sheri) Is tubing more effective than using the paste wormers?

Wendy Vaala: “Tubing” is not necessarily any better than using a paste dewormer. The best route of administration is the one that gets the right dose, and the entire dose of an effective dewormer into the horse! Many of the liquid dewormers we used to tube with were irritating if swallowed or had to be given in too large a volume to administer as a paste.

TheHorse.com: (Question from Samm) Doe the fecal egg count # apply to miniatures or is it a different #?

Drs. Reinemeyer and Vaala agree that the low, moderate, and high egg shedder values apply equally to full-sized and miniature horses.

TheHorse.com: (Question from Bev) 1- Anything make worming less effective or more effective (or potentially dangerous) with regard to the best time to worm relative to food intake? i.e.-best done after eating, before eating, empty stomach, hay, grain, grass, etc?

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(Question from Bev) 2- Anything make worming less effective or more effective with regard to exercise before or after worming?

(Question from Bev) 3- Precautions to take when worming (to prevent colic, negative reactions, etc?)

(Question from Bev) 4- Is double dosing some wormers (such as Pyrantel Pamoate) more effective, especially on tapeworms?

(Question from Bev) 6- Will wormers spoil if they become too hot or too cold if left in a tack box in summer or winter?

(Question from Bev) 7- How often should I worm, and rotate wormers?

Dr. Craig Reinemeyer: Bev, lots of good questions.

1. I’m not aware of any research which demonstrates that equine dewormers are more effective if administered on an empty stomach vs. full feed, etc. With the exception of pyrantel, most dewormers are actually absorbed from the g.i. tract and circulated through the body before returning to the gut or being excreted in the bile. I know that this type of research in sheep has demonstrated that feeding makes a big difference in efficacy (I can’t recall exactly, but I think it was more effective if sheep were fasted.)

2. Exercise shouldn’t have much impact on efficacy. Diverting blood flow from the gut to the muscles, as happens during exercise, might delay the optimal distribution of a product, but a few trips around the ring or a 3 mile trail walk won’t make much difference. Few people would deworm their horse going into a 3-day event, so few real-world cases where this would be a significant issue.

3. Current dewormers are all extremely safe, so the main things to watch out for is proper dosing by body weight, making sure the horse, and not the stall bedding, is the major recipient of the dose, and doing FECRT to make sure you’re using effective products.

4. The only dewormers that have label indications for greater efficacy at higher dosages are Panacur Powerpak and Pyrantel Pamoate Paste. All of the other products are highly effective at the label dosage, and from a deworming perspective, 99% efficacy isn’t really all that much better than 95%.

5. See other comments about daily dewormers.

6. All veterinary drugs contain label directions for storage conditions. The expected shelf life of the products was tested rigorously within the temperatures listed, so the manufacturer can’t guarantee any stability outside the established range.

7. Hopefully addressed this in the webinar.

Comment From Guest: I’ve heard a lot of strong yes and no answers on whether or not you should allow foals to pick at their mother’s manure- some say it’s good to let them as they need the bacteria, etc. and others say to pick it up right away-- what are your thoughts on this?

Wendy Vaala: Coprophagy - the act of eating manure- is a normal behavior for young foals. They tend to eat more manure the younger they are. It is believed to have beneficial effects in helping to populate their gut with beneficial bacteria to help with digestion. It may also provide needed fatty acids that help with neurological development. Interestingly, foals often seek out the manure of their own dam. Unfortunately if the mare’s manure contains large numbers of parasite eggs and occasionally harm-
ful bacteria, so the foal will also be ingesting its first meal of parasite eggs / larvae and possible disease causing bacteria such as Salmonella and Clostridia. So I recommend deworming your mare after she foals. Keep the foaling area clean. Pick out manure. Your foal will still manage to find a tasty fecal treat here and there. Its all about balance!

TheHorse.com: (Question from Kimmi) 2 of my horses have developed a big dislike to the deworming paste and it is a big hassle to administer. Are there any pellet forms of dewormer...powder or liquid...that could be put on their food...and what would you recommend? Any other ways to have the horse ingest the deworming paste other than a direct squirt in the mouth?

Wendy Vaala: There are some palatable forms of ivermectin. There is also an alfalfa-based (apple-flavored) pelleted form of fenbendazole sold as EquiBits.

TheHorse.com: (Question from Bob/Sara) I deworm the “old way” every 30 days in the summer with FBZ and use my Ivermectins in the winter a couple of times for bots that may be in the GI tract and when I do fecal checks - the egg count is low to nothing. Any new or young horses brought in get the power pack first thing and then onto the current program. That is testing with the wisconsin sugar technique. If I keep the environment clean and break the life cycle of the parasites - then why change? The data that I have gathered on our own operations shows that our current program is working fine. What data do you have to back up your claims on this new way of deworming?

Dr. Craig Reinemeyer: Bob/Sara, Given the program that you describe, you must be blessed with a farm full of low contaminators. Resistance to benzimidazole (BZD) anthelmintics like Panacur is so widespread that over 95% of horse farms have resistant populations of small strongyles. If you have BZD resistance, frequent, exclusive usage shouldn’t reduce egg counts at all. It could be that your efforts to keep the environment clean are so effective that you’re disrupting the cycle by management rather than with chemicals. So, if your testing methods are accurate, the only alternate explanation is that the horses are handling the parasites just fine with or without the help of anthelmintics (i.e., are low contaminators).

One should only need to administer ivermectin once during winter for bots. In most climates, any time after December 1 should take care of the entire season. For additional information about the utility of the webinar recommendations, you might be able to find articles written by Martin K. Nielsen or Ray M. Kaplan.

TheHorse.com: (Question from Barbara) Should a malnourished, previously ill horse be wormed even though a fecal test has been done and shown negative for worms?

Wendy Vaala: Some horses may be suffering from large numbers of encysted (hibernating) stages of small strongyles (cyathostomes). Fecals will not detect this stage of the parasite. In this case, a larvicidal treatment should be considered (such as a 5-day, double dose of fenbendazole). Collecting daily fecals during the 5-day course of treatments may reveal passage of small strongyle larvae in response to the larvicidal treatment to help confirm the diagnosis.

A fecal is can not be used to detect prepatent infections and may under-diagnose tapeworm infections and will not detect encysted small strongyles.

TheHorse.com: (Question from Lois) How often and when should I worm them for tapeworms?

Dr. Craig Reinemeyer: Lois, to be brutally honest, we don’t know squat diddly about controlling tapeworms, except how to kill them today. How soon do they come back, if at all, how many times per
year, etc.?? Your guess is as good as anyone’s. Of course, a company that sells an effective dewormer would like to see you buy as many doses as possible. And, lots of horses don’t get tapeworms, and they may be of dubious importance in those that do. So, the best recommendation lies somewhere between daily and never.

Realistically, I think twice annually, at 6-month intervals, is sufficient. Spring and autumn might be preferable, for other parasitic reasons. Either use a product containing praziquantel plus ivermectin or moxidectin, or a double dose (13.2 mg/kg) of pyrantel pamoate. Good luck, CRR

TheHorse.com: Hi everyone, we hope you’ve enjoyed the video! Drs. Reinemeyer and Vaala have kindly agreed to stick around for a few more minutes to answer the questions that have come in during the session. Thanks a bunch!

Comment From Alicia: I’m getting a 3 year old paint mare and she has just been wormed would it be safe to worm her again once I get her in my possession next month?

Wendy Vaala: Before deworming your Paint mare, I would find out what her past deworming history has been and what drug was used most recently. Consider performing a fecal exam when she arrives. If she has been on a sound deworming regimen all along and she is not shedding eggs when she arrives, I would discuss the need to deworm her with your veterinarian. It would probably be “safe” to deworm her, but it might not be necessary.

Comment From Susan: In a boarding situation, does it make sense to test your horse’s manure for worms or should they all be tested?

Dr. Craig Reinemeyer: Susan, if the horses at a boarding stable all share common pasture, your worm control program is only as good as the worst one there. It’s essential that all horses at a boarding stable be on a uniform program, but I’m always amazed at how few establishments seem to be able to enforce this recommendation. If you cannot get some uniformity in the local practices, then your only recourse might be daily dewormers, which are the only anthelmintics that are used preventively. They allow you to implement a customized program in the midst of chaos. On the other hand, if you have a low contaminator that seems to maintain low egg counts despite constant challenge, the horse will probably do fine as long as it’s on a good plane of nutrition and is maintained relatively stress-free. Good luck. CRR

Comment From Ave: We had fecal counts done on our seven horses. We followed the procedures correctly and took the samples to the vet within hours of being taken. It was done this spring when it was still cold outside with periodic snowstorms. The counts came back with -0- and the vet told us to keep up the good work. Do you think they performed the count correctly? Since the counts were all -0- what would you suggest we do now?

Dr. Craig Reinemeyer: Ave, You didn’t tell us what part of the country you’re from, but I think we can rule out the deep southeastern U.S. If you’re in the moutainous southwest, your horses may experience minimal parasitic challenge for climatic reasons. In the absence of recent deworming, it would be rather unusual for the fecal counts of 7 of 7 horses to come back “0”. It may depend on the sensitivity of the technique used (depending on how much feces is examined, the test can detect counts as low as 1 egg per gram, or might be adjusted to miss anything below 100 eggs per gram). Although 7 zeroes might be attributed to lab technique, if your horses had serious numbers of parasite eggs, they can be seen by “direct smear”. So, the good news is that your horses are probably holding their own, regardless. Best wishes, CRR
Comment From Barbara: In boarding barn situations, what would you recommend when a new horse is brought in? Should they have fecal egg counts done as described? Given ivermectin, panacur, or moxidectin after the FEC sample is taken? Or anything else?

Wendy Vaala: When new horses arrive at a barn I recommend keeping them in quarantine, away from the resident horse population...preferably for at least 2 weeks. When a new horse arrives you get whatever is in their nasal secretions (e.g. herpes virus, influenza, Streptococcus equi) and whatever is in their manure - and that includes parasites. So while you acclimate the new horse to its new surroundings, new diet, new routine, it is a great time to collect a fecal sample and monitor for fevers....and consider larvicidally deworming. Some farms will deworm newcomers with more than one drug - such as using the Panacur PowerPac first and then following up in 7 - 10 days with ivermectin or moxidectin. before turning the newcomer out onto pastures.

Comment From Catherine: Is there any risk of liver damage to horses who receive the daily treatment?

Dr. Craig Reinemeyer: Catherine, Pyrantel tartrate, the active agent of daily dewormers, is an extremely safe product. Although I haven’t looked at adverse event reports for this product for a long time, I don’t believe it poses much risk of liver damage in horses. Drugs of the pyrantel class are unique among equine dewormers in that they are poorly metabolized. In other words, they mostly stay in the gut, where the worms are, and are not absorbed by the body, processed by the liver, and re-excreted in the bile like most other products. This explains why these products are so safe, but it also explains why they don’t work on some of the parasites (e.g., migrating strongyles, lungworms, skin parasites) that are killed by products that circulate throughout the body.

Comment From Alicia: My mare is also potentially in foal, would it still be safe?

Wendy Vaala: All of the currently licensed paste dewormers have been used safely in pregnant mares. Some dewormers carry a “Safe in pregnant mare” claim.

In general I avoid the use of any unnecessary drug during the first 60 days of a mare’s pregnancy since that is the period of fetal organogenesis. During the rest of pregnancy the mare should be maintained on an appropriate deworming schedule based fecal egg counts nad her risk of parasite exposure.

TheHorse.com: For further reading, we have a number of articles on parasites and deworming at TheHorse.com: http://www.thehorse.com/TopicSearch/Default.aspx?n=Parasite+Problems+and+Control&nID=37&ID=373

Comment From Samm: I have heard MANY horror stories about using Quest in Minis, is there any research on it’s safety in minis?

Dr. Craig Reinemeyer: Samm, when Quest was first launched on the market, around 1997, it was offered in a novel dosing syringe that was susceptible to mechanical failure. Instead of administering a controlled dose of moxidectin gel, one was likely to administer an entire syringe inadvertently. No big deal in an 800 lb. gelding, but a substantial overdose to Miniature Horses and suckling foals. These horror stories have continued to circulate over the years, ad nauseum, and give credence to the old Chinese proverb that the bridge which falls makes 1,000 times more noise than the one that stands.

To summarize, any safety problems associated with Quest in equids are related to dosing, not to the product itself. If there’s any possibility of overdosing a small horse or a foal with these products, I recommend dialing up the intended dose with the product dispenser, then injecting the intended dose into a small syringe (3 or 6 mL). THEN, use the second syringe to administer the dose to the animal.
Comment From Gayle: How long do worms live in the soil or on the ground?

Wendy Vaala: It varies based on parasite and its stage of development. For example, roundworm eggs are very resilient and may endure for up to 10 years on the pasture and are very heat and cold tolerant. However, properly composed manure can reach high enough temperatures to kill round worm eggs.

Strongyle larvae, especially third stage larvae, are susceptible to hot temperatures above 85 F. Hot dry summers will kill exposed strongyle larvae on pastures and in paddocks. However, these same larvae are often able to “hibernate” and over-winter up north and are ready to infect horses again when temperatures warm up again in the spring.

TheHorse.com: (Question from Claudia) Our ponies regularly chew fences only after deworming (spring: fenbendazole, fall: moxidectin/praziquantel). They are not in the same stall/paddock. We have added probiotics, which seem to help them. The ponies seem to be more sensitive to the deworming than our 8 horses. Have you come across other cases like such?

Dr. Craig Reinemeyer: Claudia, if the ponies chew on objects immediately after deworming, perhaps it represents an attempt to “get rid of the taste” (like my dog licking its butt after eating my mother-in-law’s meat loaf). And, if it continued for a day or two, it may just be a manifestation of resentment after “oral invasion”. Other than that, I haven’t a clue. In general, many ponies seem to be more sensitive/high maintenance than the typical horse, but I can’t think of any reason why this would be related to the deworming chemicals or to the worms that they kill.

TheHorse.com: We’d like to offer a special thanks to Drs. Reinemeyer and Vaala for taking the time to address this topic and answer your questions. And of course thanks to this event’s sponsor, Intervet Schering-Plough Animal Health. Visit them online at www.getrotationright.com.

TheHorse.com: That’s all the time we have for today’s Webinar. Thanks for joining us! If you have suggestions for future topics or any feedback for us, please email us at THWebinars@TheHorse.com. Don’t forget, this Webinar will be archived for later viewing, along with a transcript from this chat, on TheHorse.com.