

Irongate Equine Clinic Targeted or Strategic Deworming Protocol

Strategic or targeted deworming is a program designed to control clinical parasitism due primarily to small strongyles and tapeworms, to control environmental contamination, to determine if parasites on the farm have resistance to any of the deworming products we intend to use and to prevent the development of parasite resistance to deworming products in use currently. The historically recommended rotation deworming schedules – programs based on a 2 month deworming interval with little or no parasite monitoring – have been shown to lead to anthelmintic resistance. In many horses, deworming every 8 weeks is far more frequent than required to control that individual's parasite issues. This overuse of deworming products has put strong selective pressure on parasites which has led to localized resistant populations of parasites.

Horses develop a certain level of natural immunity to parasites as they are exposed to parasites over the course of their lifetime. This level of immunity may change if the horse's immune status changes due to pregnancy, stress, performance levels or health issues such as aging, illness or Cushing's syndrome. 20% of the horses are shedding 80% of the eggs into the environment. The theory of this deworming protocol is to deworm the horses that are producing the most eggs and therefore contaminating your pastures. Moderate and high shedders will be dewormed more frequently than the low shedders in an effort to decrease the number of eggs they are leaving in the pasture. Deworm the horses that are producing the most eggs. No stigma should be attached to these horses as it is merely a function of their innate immunity to parasites and nothing suggesting poor care. Nor should these horses be segregated or separated from the rest of their herd mates. Horses should be grouped by age (two year olds and younger should be separate from the rest of the herd) to reduce their exposure to certain parasites & maximize the deworming program for that group.

Environmental control is also important. Management practices that can be utilized, although not always practical and/or possible, include the following: pick-up & disposal of manure in pastures regularly –the best dewormer of all. Mowing/harrowing pastures regularly to break up manure piles and expose parasite eggs & larvae to the weather(when temperature is greater than 85 degrees), leaving pastures empty for 4 weeks after harrowing, rotating pastures with other livestock to break up life cycles of parasites, and avoiding over stocking pastures and over grazing.

It is not our goal to eradicate or eliminate all parasites or to make moderate and high shedders into low shedders. Our goal is to treat clinical problems related to parasites, to control environmental contamination, to determine if parasites on the farm have resistance to any of the dewormers we intend to use and to prevent the development of parasite resistance to the dewormers we are using.

The protocol is as follows...

1. Wait an appropriate period of time after last deworming – depends on the dewormer used
 - Wait 8-10 weeks after Strongid, Panacur, Anthelcide
 - Wait 12 weeks after any ivermectin product
 - Wait 16 weeks after Quest or Quest Plus

2. Collect fecal samples for fecal egg counts on 100% of the herd
 - 1-2 fecal balls in a zip lock bag labeled with your name, horse's name, age, date of collection, last dewormer given and when it was given
 - Express as much air from the bag as possible and seal it
 - Keep cold until submitted, should be submitted within 1-2 days of collection
 - Do not allow the samples to freeze either in the environment or in storage
3. A fecal egg count will determine what group your horse falls into – low, moderate or high
 - Low shedder - <200 eggs per gram of fecal material
 - Moderate shedder – 200 to 500 epg
 - High shedder - >500 epg
4. Determine if there are resistant parasites on the farm by doing fecal egg reduction counts where appropriate. This consists of performing a fecal egg count prior to deworming, then again 10-14 days after deworming. The second fecal egg count should drop by 90 to 95% (depending on the dewormer used) if the dewormer is still effective on that farm or in that horse. These can be done on horses with egg counts of 200 epg or more.

Then...

Determine the approximate weight of the horses to be dewormed to ensure that they are not under-dosed (use available weight tapes or scales).

Low shedders will be dewormed once to twice a year, in March/April and again in November with either an ivermectin or moxidectin product. A praziquantel containing dewormer is used in the fall to control tapeworms.

Moderate and high shedders will be dewormed 3 to 4 times per year utilizing ivermectin or one of the other products available that have been shown to be effective on your farm or horse through the use of a fecal egg reduction count.

Fecal egg counts will/should be done more frequently the first year or two that this program is in place but after that the number should go down to once or twice a year unless something changes in your horse's health status.

Fecal egg counts pricing - Contact our office for current fecal egg count prices. The cost of fecal egg counts is recovered when you consider that the most costly deworming program is an ineffective program. What you will spend on FECs will come back to you because you will be deworming less frequently and more effectively.

In summary

- Run FEC 4 weeks after the Egg Reappearance Period of the last dewormer used
- Categorize each horse into low, moderate or high shedder groups
- Deworm appropriately based on their group
- Use either ivermectin or moxidectin (Quest) with praziquantel in the fall to control bots and tapeworms in all horses
- Utilize dewormers that are effective on a particular farm or animal
- Practice good pasture management to minimize exposure
- Foals and horses under the age of two years need to be dewormed differently due to ascaird and large strongyle issues
- **Programs vary – talk to any of the veterinarians at Irongate Equine Clinic to tailor a program to your group of horses.**

Dedicated to the health and well being of the horse