

Overview of the latest “AAEP Parasite Control Guidelines”

The AAEP (American Association of Equine Practitioners) has put forth some new guidelines for veterinarians to help them develop improved strategies and programs for parasite control for horses of all ages. Recommendations were developed based on the following:

1. Important changes in the types of parasites of horses have occurred. Large strongyles are relatively rare and small strongyles are now the parasite of major concern in adult horses, with ascarids the most important parasite infecting foals and weanlings.
2. Dewormer (anthelmintic) resistance is highly prevalent in small strongyles and ascarids and this MUST factor into treatment decisions.
3. Adult horses vary greatly in their innate susceptibility to infection with small strongyles and their level of egg shedding, thus requiring individualized attention to their parasite control needs.
4. Horses <3 years of age require special attention as they are more susceptible to parasite infection and are more at risk for developing disease.

A couple of important terms to define:

Anthelmintic Resistance: is the ability of worms in a population to survive treatments that are generally effective against the same species and stage of infection. Anthelmintic resistance is an inherited trait.

Parasite Refugia: refers to the portion of a population of parasites (or stages of parasites) that escapes selection with the drug at the time of a treatment event. The higher the proportion of worms in refugia, the more slowly resistance develops.

Fecal Egg Count Reduction Test (FECRT): the test used to determine if strongyles and/or ascarids are resistant to a given anthelmintic.

Egg Reappearance Period (ERP): time interval between the last effective anthelmintic treatment and the resumption of significant strongyles egg shedding.

Goals of the program can be summarized as follows:

- : To minimize the risk of parasitic disease.
- : To control parasite egg shedding.
- : To maintain efficacious drugs and avoid further development of anthelmintic resistance as much as possible.

FEC (Fecal Egg Count) – a test that is performed on the feces of an animal to determine the number and type of parasite eggs that a particular animal is shedding.

Reasons to do a FEC:

- : To evaluate the efficacy of a dewormer using the FECRT.
- : To evaluate and monitor the ERP of the most recently used dewormer.
- : To determine the shedding status of a horse at the time of fecal sampling.
- : To determine whether the parasite burden in foals/weanlings is primarily strongyles or ascarids.

In well-managed horses, approximately 90% of all strongyles eggs seen in the fecal samples are from small strongyles. Other GI parasites include tapeworms, roundworms (ascarids), pinworms and bots.

When looking at the results for a FEC, guidelines for classifying individual horses have resulted in the following categories:

Low Shedders: 0-200 eggs/gram feces	50-70% of the adult population
Moderate Shedders: 200-500 eggs/gram feces	10-20% of the adult population
High Shedders: >500 eggs/gram feces	20-30% of the adult population

Methods of parasite control:

1. Environmental Control – timing of pasture rotation and deworming to coincide with the optimal time of larval development.
2. Dewormers – there are several different types of dewormers on the market today and the focus of a deworming program should be the control of small strongyles, including a treatment that is effective against the encysted small strongyles when the intestinal burden is considered to be at its highest (usually at the end of the grazing period). It is important to include a treatment for bots as well as an appropriate dewormer to target tapeworms if there is a problem in your region.
3. Formulate an appropriate deworming program for adult horses and for younger horses (foals, weanlings, yearlings).

General Points to Consider:

1. Do not under-dose horses and foals with dewormer. Use weight tapes or scales to determine body weight.
2. Small strongyles, large strongyles and tapeworms are acquired on pasture. Ascarids and pinworms can be acquired in confined areas as well as on pasture.
3. Use properly performed FECs to determine the shedding status of a horse and the drug efficacy of a drug with a horse new to the property before turning the horse out into common pasture.
4. Consider using a blood test (ELISA) submitted on at least 20% of the resident horses on a property to determine exposure potential for tapeworms.
5. Concentrate dewormer treatments when the local climate favors parasite transmission.
6. Decrease dewormer treatments when the climate conditions are adverse (hot, dry summer/freezing cold winter) for the survival and transmission of parasite larvae.
7. Design a parasite control program that considers the farm's management practices and region of the country.

Summary:

Parasite control programs are best viewed as a yearly cycle starting at the time of the year when worm transmission to horses changes from very minimal to very probable. All treatment or non-treatment recommendations need to be viewed in the proper context of a preventative program where FECs are being performed. Each horse needs to be considered an individual and treated appropriately if showing any clinical evidence of parasitic disease. “Ultimately, each farm (with veterinary guidance) should develop its own program tailored to the specific needs of the farm and each animal. There is not such thing as a “one size fits all” program.”