The University of Illinois Equine Primary Care recommends a targeted deworming program that identifies parasitized horses by fecal egg counts and treats horses individually based on their level of egg shedding.

The interval program—when all horses on the farm were treated with a rotation of dewormers on a set schedule—is no longer recommended. Introduced in the 1970s to control the large strongyle (bloodworms), the interval program was very effective against its targeted parasite, and now large strongyles are very rare.

The small strongyle (Cyathostome) is now the most common parasite found in the horse. Unfortunately, interval deworming programs have made little impact on the prevalence of this parasite in horse populations.

Whether an individual horse sheds parasite eggs depends more on individual immunity to parasites than on the frequency of deworming treatments. It is estimated that 20 percent of the horses in a herd account for 80 percent of the eggs shed onto pastures. Up to 50 percent of the horses may shed few or no parasites, whether or not they are dewormed.

The result of giving dewormers to all horses at a set interval regardless of the level of parasitism has resulted in widespread resistance to many of our deworming products and led to the recent emergence of resistance to the avermectins, including Ivermectin and Moxidectin. Resistance is of great concern because no new classes of anthelmintics that are effective against horse parasites have been identified. We must preserve the effectiveness of the drugs that are available.

With this goal in mind, we recommend using fecal egg counts to determine the level of egg production by an individual horse and designing a parasite control program for each horse based on the level of egg shedding.
Goals of Fecal Egg Counts

1. **Determine egg production status of the individual horse.**
   Egg counts must be done at an appropriate interval after the administration of the last dewormer. Your veterinarian can recommend the appropriate interval based on the last drug that was administered. After a horse is 4 years of age, it may be classified into one of three categories based on egg production and should be dewormed at an appropriate frequency to minimize the effects of the parasites. (Horses between 1 and 4 years of age, which are developing immunity to parasites, should be managed as if they are high shedders regardless of fecal egg counts.)
   - Low shedder – deworm twice a year.
   - Moderate shedder – deworm three times a year.
   - High shedder – deworm four times a year.

2. **Evaluate the efficacy of drugs used on a particular farm.**
   A post-treatment fecal egg count should be determined for all horses that were shedding parasite eggs 2 weeks after the horse was dewormed. A reduction in fecal egg count of less than 90 percent indicates that parasites are resistant to that particular group of products and that product should no longer be used.

How to Collect Fecal Samples

- Sample must be fresh.
- Collect 2 fecal balls from the center of the manure pile into a Ziploc bag.
- Squeeze the air out of the bag before sealing.
- Refrigerate if the fecal egg count can’t be done immediately.
- All samples should be labeled with the date, owner, and horse’s name.