parasite control

Variability in susceptibility to parasite infection

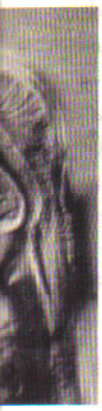
Fecal egg counts (FEC) in horses are incredibly consistent for an individual horse, as shown recently from a three-year study in Denmark. FECs were measured at six-month intervals, in the spring and fall, with horses only treated if their egg counts were greater than 200 eggs per gram (EPG). The study also demonstrated consistency across seasons. If the first two egg counts were zero, the chance that the third would be zero was 84 percent. If the first two were less than 200 EPG, the chance that the third one was less than 200 EPG was more than 90 percent. If the first two were greater than 200 EPG, then the chance that the third one was greater than 200 EPG, was about 60 percent. The data show a greater correlation in untreated animals; horses with FECs less than 200 EPG stayed low even without treatment. Those with FECs greater than 200 EPG were treated, yet their egg counts stayed high despite the treatment. The FECs consistency within each horse remained. The consistency is believed to be partially genetic with a possible behavioral component, their grazing patterns. Though not well determined, certain horses might graze closer to the fecal material than other horses, therefore they will be exposed to a greater intake of parasites.

A horse probably only has to be probed once, to determine its profile, a high greater than 500 EPG, moderate 150-500 EPG or low egg shedder (less than 150 EPG). Once a horse's FEC is determined, then the veterinarian can design a parasite control program specifically to address the needs of those animals. It makes no sense to use the same treatment program for a horse with an FEC of about 1,000 EPG, every time you check it, regardless of how often you treat it, a horse that's got zero EPG, every time you check it, even if you don't treat it.

In a recent study performed on 12 farms in approximately 400 horses, Ray Kaplan, DVM, PhD, a parasitologist with the University of Georgia, looked at the data of high, moderate and low egg shedders. Fifty-five percent were low egg shedders, yet they shed only 4 percent of the total eggs, whereas 23 percent were high egg shedders, and they produced about 84 percent of the eggs. Three percent of the horses produced 25 percent of the eggs. These data support the guidelines that 10 to 30 percent of horses, don't manage parasites very well; another 20 to 30 percent manage them moderately well, and about 40 to 60 percent manage their cyathostome parasites extremely well.

Much parasitology work is being in Denmark, where all anthelmintics are by prescription only since 1999. Danish horse owners may not treat prophylactically. They can only treat on the basis of a veterinarian's diagnosis, or if the vet believes that there is a risk of disease in an animal. As a result of this change in policy, treatments are administered much less frequently, yet there has not been a massive outbreak of parasitic disease in Danish horses, and there is no evidence that horses are less healthy than before the change in the law was made. ■

— By Ed Kane, PhD



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While current 8-week protocols that rotate drugs works by and large, some horses on some farms still suffer infestations, requiring the individual treatment of some animals differently from the herd as a whole.

species of small strongyles have been fighting back. A recent study suggests that some animals from some farms can pose serious treatment problems. So much so, some veterinarians advocate a more individualized approach as a measure to protect the long-term efficacy of anthelmintics.