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New Strategies for Parasite Control

Traditional frequent deworming programs are no longer viable options in equine parasite control due to the development of parasite resistance to anthelmintics (dewormers). Internal parasites in horses have long been recognized as a significant health problem, potentially causing a dull, rough hair coat, a lack of energy, tail rubbing, weight loss or failure to gain weight, loss of appetite, diarrhea, and colic. The most common internal parasites affecting horses are small and large strongyles, round worms, tapeworms, pinworms and botfly larvae. Parasites cause different degrees of harm to horses depending on the type and species. The goal of parasite control programs is not to kill adult worms, but to reduce their ability to reproduce.

Over the past several years, evidence of parasite resistance to all classes of dewormers has emerged. With no new classes of dewormers on the horizon, horse owners need to make use of other tools to manage internal parasites while reducing the likelihood of resistance to available dewormers. Fecal egg counting (FEC) is a valuable tool that identifies the contaminative potential of individual horses. Basing deworming schedules on FEC of horses and seasonal patterns of parasite transmission reduces the use of dewormers and minimizes parasite resistance.

Fecal egg counts (FEC) are a measurement of the number of parasite eggs per gram (EPG) of manure. Individual horses differ in their susceptibility to parasites and they are classified based on their FEC as low contaminators (less than 200 EPG), moderate contaminators (200 to 500 EPG), or high contaminators (more than 500 EPG). The classification of an individual horse usually remains the same from year to year, so fewer FECs are required after the first year. While an initial FEC is useful in determining the parasite burden of an individual horse, a second FEC is required after deworming to examine the efficacy of each class of anthelmintic used. Fecal Egg Count Reduction Testing (FECRT) is the process of performing FEC before and after treatment with a dewormer and the effectiveness of the dewormer is determined by the percent egg reduction. In southern temperate climates where the highest risk of transmission is September through March, the initial FEC should be performed in September, or when temperatures fall below 90 °F.

The use of FEC and FECRT in equine parasite control programs reduces the threat of parasite resistance by allowing horse owners and veterinarians to identify which anthelmintics are effective, and which horses require more intensive control measures against internal parasites. Parasite control programs should be customized for individual horses and herds based on FEC, seasonal patterns of parasite transmission, the climate, and pasture management schemes.

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