



## **De-worming strategies**

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There are many theories in the horse world about how you should approach de-worming your horse(s) effectively. My goal with this article is to provide facts related to the common theories and deliver up to date information for owners to take a leadership role in determining the best strategies for their particular horse(s). An overview of common equine parasites is paramount to understand the effect they can have on your trusty steeds. The common equine parasites are large strongyles (bloodworms or redworms), small strongyles, roundworms are the most pathologic in the horse, but all can cause problems. Worms go through different development stages including egg, larvae (immature) and finally adult (mature) worms. The larval stage can migrate through the intestinal wall or to other organs and cause significant systemic reactions, along with laying dormant in the wall and shed when they reach maturity. Migration and/or carrying a large worm burden can cause different types of colic in the horse, therefore making de-worming very important for preventative care.

Recommendations for de-worming horses have changed over time due to parasitic resistance. When I bought my first horse at age 15, I worked at a tack shop my father owned and the worming aisle was fully stocked with a large assortment of brightly colored boxes with lots of long and hard to pronounce names. There were so many choices available I had a difficult time deciphering. The theory then was to rotate de-wormers every 6 weeks or so. Rotating de-wormers was also required at many boarding facilities and still is. Science has shown that this approach is just one of the reasons why we have seen resistance in some horses or even herds to the common anthelmintics (de-wormers)

available.

As I became more educated, rotational de-worming programs started to decrease in popularity and the use of fecal egg counts became the new trend. There were owners who relied solely on performing fecal egg counts (FEC) and de-worming based on the numbers shown from that specific test. I personally feel and science has shown that fecal egg counts are important to have analyzed; however, a low shedder does not indicate your horse is parasite free. Fecal egg Counts do not reliably get an appropriate number of eggs shed by small strongyles. This is because small strongyle eggs are only seen on a FEC if there are mature female worms shedding. If there are no eggs seen, you cannot rule out the encysted form (which are not mature, and do not actively shed eggs). Another parasite commonly missed with FEC's are tapeworms. The egg of a tapeworm is too heavy to be seen on the fecal float method. Small strongyles and tapeworms are a common cause of colic, therefore making sure your horse is not significantly affected by these two common parasites is paramount in the fight against parasites.

Due to the FEC test not accounting for 2 of the common equine parasites, it is important to de-worm your horse at least 2 times a year with a product that works on encysted small strongyles and tapeworms regardless of a possible low shedding result on fecal egg counts. Moxidectin is an anthelmintic effective against encysted small strongyles and praziquantel has been shown to be effective for tapeworms. As a hint, any de-wormer with the "plus" added on to the name typically carries praziquantel.

Fecal Egg counts are still very important to perform at least twice a year. This is because each horse has a different level of immunity to the common parasites, which means some carry a heavier worm burden than others and should be de-wormed more frequently as a result. Fecal egg count results will be shared with you by your veterinarian but what you do with those results is most important. There are 3 levels of FEC's: low, moderate and heavy. Low means there are less than 200 eggs per gram (epg), moderate is a range between 200-500 epg and heavy is over 500 epg. If your horse is low, still de-worm with moxidectin and a praziquantel product once a year. If your horse is moderate add a 3<sup>rd</sup> de-wormer that year and if your horse is a heavy shedder a 4<sup>th</sup> de-wormer that year is necessary. With the moderate and heavy shedders, a follow-up FEC should be performed 4-6 weeks after de-worming to evaluate that particular horse's response to that de-wormer to see if there is a resistance pattern present. I suggest that with the higher shedders, you should consult with your veterinarian to decide which course to take to make sure you find out what de-wormers your horse is resistant to.

Foals are a different situation. While intermittent de-worming is adequate

for adult horses, the immune system of foals is not quite ready to handle intestinal worms on its own. A de-worming program starting at 30 to 60 days of age and continuing every 30-60 days until the foal is at least 12-18 months should be initiated. There are many effective de-worming compounds (aka anthelmintics), that are safe for use in foals, some examples are ivermectin, pyrantel and fenbendazole. It is important to read the label to determine the active ingredient of the product and understand if it is safe to use in foals. The body weight of the foal should be determined as accurately as possible and the appropriate amount of de-worming medication administered for that body weight. Rotation between classes of de-worming medications is often recommended, but is somewhat controversial. Results of recent studies have shown that resistance to certain types of de-wormers has become increasingly more common in recent years. Fecal egg count reduction tests before and after de-worming are important to determine resistance in individuals. Remember that moxidectin should not be used in foals less than 6 months of age.

De-worming strategies do not stop at the hard to pronounce drug names in the bright colored boxes. It is multi-faceted and includes proper pasture management, geographic location and climate, housing conditions, proper storage of the de-wormers, proper dosing, de-worming of foals, choosing which horses to de-worm more often depending on individual immunity and consulting with your veterinarian. In other words, there is not a single de-worming strategy recommended for all farms.

I hope that this information will give horse owners an arsenal against intestinal parasites that will reduce resistance, reduce the number of parasites on the farm, and as a result, improve the health and overall well-being of your horse.

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