Equine Parasite Control Practices

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A special report by Drs. Craig Reinemeyer and Barton Rohrbach, that presented results of a survey conducted in Tennessee, was included in the Journal of the American Veterinary Medical Association. The survey was designed to obtain information from Tennessee horse owners on their perceptions and management practices concerning equine parasite control in 1987. An eight page survey form was used to record telephone interviews with a sample population of 128 subscribers to the Tennessee Horse Express, a University of Tennessee Extension Service newsletter. Since the participants were already newsletter subscribers, this sample may reflect a more knowledgeable group of horse owners with a higher standard of care than the general horse-owning population.

Questions were asked to collect information on the horse owner's profile: The typical respondent kept 4 horses on 2 pastures totaling 125 acres and did not rotate pastures as a parasite control measure." Specific questions were asked regarding deworming products and schedules of deworming various ages of horses. To the open-ended question "How do you decide when to deworm horses?" 83% replied, "according to a regular schedule." The frequency of "a regular schedule," however, varied considerably from one to four times a year.

Foals and Weanlings

Of the 40 respondents that had owned and dewormed foals the previous year:

- 100% had dewormed foals once before they were 6 months of age.
- 60% had dewormed the foals twice.
- 15% had dewormed the foals 3 times before the age of 6 months.
- 15% had dewormed the foals 3 times before the age of 6 months (bimonthly).

Weanlings fared somewhat better than the foals in frequency of deworming:

- 100% were dewormed at least once before a year of age.
- 91% were dewormed at least twice.
- 32% were dewormed at least three times before a year of age.

At the most, only 15% of the foal owners and 32% of the weanling owners dewormed bimonthly to directly protect the young horses from patent ascarid infections and, indirectly, decrease environmental contamination. For heavily contaminated areas, however, increased frequency of deworming young foals may still be needed even with EQVALAN® (ivermectin) brand products (every 6 weeks) since immature "mature-sized" ascarids may be found in the gastrointestinal tract 40 days after egg ingestion.

Regardless of what anthelmintics were used, the majority of owners in this survey did not deworm young horses frequently enough to:

- Prevent environmental contamination;
- Protect against migrating large strongyles; or
- Prevent patent infections of ascarids, *Strongyloides westeri* and small strongyles.

A strategic deworming schedule in immunologically naive foals and weanlings may require EQVALAN bimonthly, or benzimidazoles monthly, to adequately control nematodes.

**Mature horses**

In general, mature horses (94%) were dewormed at least twice a year.

- 56% were dewormed three times
- 24% were dewormed four times annually

These responses revealed a lack of understanding of pasture contamination and strategic deworming programs.

**Broodmares**

Only 34% of the respondents dewormed a mare in her third trimester. This statistic highlights the widespread concern horse owners have for using dewormers during late pregnancy. The use of safe, appropriate
anthelmintics during the third trimester or pre-foaling can reduce transmission of *Strongyloides* from the mare to foal, as well as continue a sound parasite control program in the mare. Deworming the mare with an appropriate anthelmintic the day of parturition has been shown to significantly decrease the incidence of *S. westeri* in the foals as compared to controls (DiPietro). Either practice should help eliminate a parasitic cause for "foal heat diarrhea."

**Veterinarians**

It is well accepted in veterinary medicine that appropriate anthelmintic selection, timing and administration are the keys to parasite control in an individual animal and herd situation.

- 54% of the respondents in this survey felt that tube deworming was more efficacious than paste or drench deworming; none of the owners considered all routes of administration to be equally effective.

- 73% of the owners regarded equine magazines, word of mouth, feed store clerks and "other" as their major source of information on effective parasite control programs.

- Only 27% of the owners said veterinarians were the most important source of information regarding when to deworm horses.

It appears that the veterinary profession is being under-utilized in communicating the science behind parasite control in the equine industry. The use of quantitative fecal exams by the profession is minimal, at best, in evaluating and monitoring parasite control programs. This survey of Tennessee horse owners highlights the opportunity that exists for veterinarians to become actively involved in a key area of preventive medicine: parasite control. By developing a strategically timed parasite control program and by monitoring its effectiveness through quantitative fecal examination, the essential role of the veterinarian can be re-established.

**References**