Summary:

Aim

The 3 objectives of this project were to:

1. Identify the current parasite management and control practices for Thoroughbred horses used by breeders and trainers.

2. Determine the specific parasite control regimens for Thoroughbred horses used on stud farms.

3. Determine if anthelmintic resistance is present on Thoroughbred stud farms in New Zealand.

Methods

Online questionnaires were used to describe and compare the current parasite management and control practices used on Thoroughbred and Standardbred breeding and training farms in New Zealand. Questions related to anthelmintic use and management practices likely to impact on parasite populations (e.g. cross-grazing with other species, harrowing paddocks) and what sources of advice for use of anthelmintics were sought.

Six stud farms were selected for further investigation including further questions regarding anthelmintic use and grazing management on that property, and on each property an egg count reduction test was conducted to examine the efficacy of ivermectin against the parasitic nematodes prevalent on that property.

Results

The survey work showed that most horses, young and old, whether used for breeding or for racing, were frequently being given anthelmintic, with little use being made of faecal egg

counts to decide whether treatment was in fact necessary. Even racehorses with little access to pasture continued to receive anthelmintic on a regular basis.

Most anthelmintics were given orally, but some properties reported using injections or pour-on treatments, despite no products being licensed for horses by these routes. The majority of properties surveyed did not make use of faecal egg counts, but approximately two thirds did seek advice from their veterinarian and those that did were more likely to monitor egg counts.

Little evidence was found for a decline in efficacy of ivermectin against egg-laying adult parasites, but there was some evidence on 3 of the 6 properties tested of reduced efficacy against immature parasite stages. This was manifested as reduced egg reappearance periods and suggests that overt resistance to ivermectin cannot be that far away

Conclusion

Current practices for parasite control in horses in New Zealand are arguably not sustainable. In the future, greater use may need to be made of targeted programs whereby animals are treated with anthelmintic only after a significant level of egg shedding has been demonstrated. This will help protect the efficacy of existing anthelmintics, but may not be enough if anthelmintic resistance has already established.