

CONTROL OF HORSE DISEASES (CONVENTIONAL AND EMERGING) UNDER TROPICAL ENVIRONMENT

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Introduction

Horses in Peninsular Malaysia belong two major groups: Imported Thoroughbred and their cross and indigenous ponies of Kelantan and southern Thailand. The disease status of these two groups of horses has never been fully investigated. Imported horses may introduce new diseases from temperate into the hot humid environment and its diseases. The status of the disease condition in the tropics and its management status need to be fully understood. The management and disease status of indigenous ponies also needs to be investigated. The aim of this study is determine the disease status of imported and indigenous horses in Peninsular Malaysia and their control.

Materials and Methods

Various studies on equine diseases were on Thoroughbred and its crosses and local indigenous ponies. The status of the indigenous ponies industry was made through prepared questionnaires that covered both management and disease aspects. Studies were focused on diseases affecting mainly respiratory and musculoskeletal systems and skin. Diagnosis was made through analysis of blood, serum, nasal swabs and skin scraping. Management related problems related to the effect of environment on performance were also investigated in Thoroughbreds and their crosses. The adaptation of imported horses in the hot humid environment was investigated by analysing blood electrolytes and enzymes on resting and working horses. Trial production of equine concentrates using agriculture by-products was also attempted.

Results and Discussion

Local indigenous ponies were concentrated mainly in the State of Kelantan and were estimated to be about 2000 head.

They were managed under a simple management system and fed PKC based diet and any other agriculture byproducts. Although disease treatments and control is minimal but health problems are also not high. Disease of the musculo-skeletal, respiratory and gastrointestinal systems were the most common condition seen, however was quite minimal, their blood parameters were comparable with the international standards. Parasitic infestation was minimal based on egg counts in spite of the poor deworming programme. The common upper respiratory tracts flora were staphylococcus and streptococcus but clinical cases were very low. Thoroughbred and its crosses mainly used for racing, equestrian sports and hobby were better managed better with upto date management systems and equipment. They were fed special commercial imported feed.. Diseases encountered were also mainly musculoskeletal (70%), gastrointestinal or colic (5%), respiratory (5%), skin (10%) and others. Study on parasitic infestation revealed almost negative result due to constant herd health control. However serological titres, which were positive for influenza and Japanese Encephalitis are indicative of vaccination. Fifty percent of thoroughbreds were found to adapt to hot tropical environment but 10% of these showed longer adaptation period as indicated by changes in sweating characteristics. The remaining 50% were unable to adapt with signs of anhidrosis and poor performance. There were also marked changes in pulse rates at rest and work, respiratory, blood and electrolyte parameters. A major constraints confronting the equine industry is the indiscriminate feeding of concentrates of other species to indigenous ponies. The concentrate feed developed costs only about RM400 per tonne, which is a third of the imported costs. Testing trial on both ponies and Thoroughbred were very successful and product can easily be commercialised.

Conclusions

The thoroughbreds generally were able to adapt to the hot tropical environment although some showed signs of anhidrosis and poor performance. The diseases encountered in these horses were mainly musculoskeletal, gastrointestinal and skin. Trials on new horse feed using local agriculture products showed that the concentrates produced is cheaper than imported feed without affecting performance.