

Evaluation of Effectiveness of Three Common Equine Thrush Treatments

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Abstract : Thrush is a common disease of ungulates primarily affecting the frog and sulci, caused by the anaerobic bacteria *Fusobacterium necrophorum*. Thrush accounts for approximately 45.0% of hoof disorders in horses. Prevention and treatment of thrush are essential to prevent horses from developing severe infections and becoming lame. Proper knowledge of hoof care and thrush treatments is crucial to avoid financial costs, unsoundness and lost training time. Research on the effectiveness of numerous commercial and homemade thrush treatments is limited in the equine industry. The objective of this study was to compare the effectiveness of three common thrush treatments for horses: weekly application of Thrush Buster, daily dilute bleach solution spray, or Metronidazole pastes every other day. Cases of thrush diagnosed by a veterinarian or veterinarian-trained researcher were given a score, from 0 to 4, based on the severity of the thrush in each hoof (n=59) and randomly assigned a treatment. Cases were rescored each week of the three-week treatment, and the final and initial scores were compared to determine effectiveness. The thrush treatments were compared with Thrush Buster as the reference at a significance level of $\alpha=.05$. Binomial Logistic Regression Modeling was performed, finding that the odds of a hoof treated with Metronidazole to be thrush-free was 6.1 times greater than a hoof treated with Thrush Buster ($p=0.001$), while the odds of a hoof that was treated with bleach to be thrush-free was only 0.97 times greater than a hoof treated with Thrush Buster ($p=0.970$), after adjustment for treatment week. Of the three treatments utilized in this study, Metronidazole paste applied to the affected areas every other day was the most effective treatment for thrush in horses. There are many other thrush remedies available, and further research is warranted to determine the efficacy of additional treatment options.

Keywords : *fusobacterium necrophorum*, thrush, equine, horse, lameness

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