

# Relationship between stable management practices and ocular disease in horses

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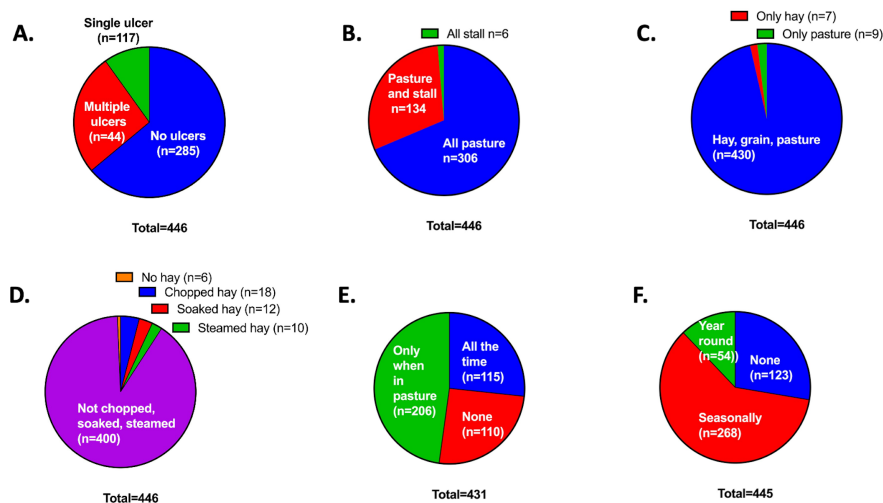
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## Abstract

Background: Ocular diseases, especially corneal diseases, are common in horses and their occurrence is associated with trauma. It is not known if management practices promote or prevent the development of ocular diseases, such as corneal ulcers. Objectives: This study aimed to evaluate how stable management practices, such as environment, feeding, or use of fly masks, are related to the development of eye diseases, primarily corneal ulceration, in horses. Study design: A survey of horse owners in the state of North Carolina was conducted which asked owners how they managed their horses and their responses were correlated to the types of eye diseases the horses experienced. Methods: Data collected from the survey included the primary environment of the horse (stable or pasture), type and method of feeding of hay, use of fly masks, and eye diseases that the horses have developed. Correlations between management practices and eye disease were then performed. Results: Of 446 horses, 161 (36% of total) had been diagnosed with a corneal ulcer, 44 (10%) had multiple corneal ulcers, 65 [15%] horses had uveitis, and 15 (3%) had immune-mediated keratitis. Horses that were kept in pasture exclusively were significantly less likely to have had a corneal ulcer than horses kept in a combination of pasture and stalls ( $p=0.0348$ ). There were no significant correlations between types of hay or how hay was fed with the occurrence of corneal ulceration or other ocular diseases. Main limitations: Results, such as disease diagnoses, are solely based on horse owner responses and not medical professionals. Conclusions: Horses kept primarily in pasture have fewer ocular diseases, likely because they sustain less ocular trauma compared to horses kept in stables. How hay is fed does not correlate with the incidence of corneal or other ocular disease.

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