Testing for Equine Infectious Anemia (EIA) in the U.S.

The USDA’s National Animal Health Monitoring System (NAHMS) indicated that U.S. equine owners spent an estimated $34 million to test for equine infectious anemia (EIA) in 1997.

Equine infectious anemia (EIA) is caused by a viral infection that affects the immune system of equine species. EIA is most commonly transmitted via blood during interrupted feedings of large biting flies, especially horseflies and deer flies. There is currently no treatment or vaccine available for EIA, and horses remain persistently infected with EIA for life. Because infected horses pose a threat to other equine species, most states require that horses testing positive for infection by this virus be euthanized or quarantined for life.

Infected horses may appear normal, and state and federal control programs have been instituted to eliminate inapparent carriers. Many local horse shows, pony club meetings, race tracks, trail rides, and boarding stables also require testing for EIA. The overall percentage of positive EIA tests has decreased since the advent of the agar gel immunodiffusion (Coggins) test in the early 1970’s.

NAHMS collected data on equine health and management practices from a representative sample of equine operations in 28 states. These operations represented about three-fourths of the equine population and three-fourths of operations with equids in the U.S. For this study, equids were defined as horses, miniature horses, ponies, mules, donkeys, and burros. Overall 2,904 operations with one or more equids participated in the Equine ’98 Study’s first interviews from March 16 through April 10, 1998. More detailed information on the study and the sampling methodology is available in NAHMS Equine ’98 tabular summary reports.

The Southern region had the largest percentage (55.2 percent) of operations that tested resident equids for EIA in 1997 (Figure 1). Resident equids were those animals for which the operation was a home base as opposed to visiting animals. The Western region had the smallest percentage (18.9 percent) of operations that tested for EIA.

Overall, the primary reasons operations tested for EIA were show requirements within the state (41.4 percent of operations that tested for EIA, Figure 2) followed by
interstate movement regulations (19.2 percent of 
oppositions).

A larger percentage of operations tested equids for EIA 
for interstate movement in the Western region (39.1 
percent) than in other regions in 1997 (Figure 3). A 
larger percentage of operations in the Southern region 
(21.4 percent) tested equids for EIA for personal 
knowledge than in other areas.

The NAHMS Equine '98 Study found that 30.9 percent 
of operations had personnel who were knowledgeable 
about EIA, while 30.3 percent had not heard of it before 
the study.

Overall, 35.6 percent of resident equids were tested for 
EIA in 1997. The Southern region tested the largest 
percentage of resident equids for EIA in 1997 (49.7 
percent), while the percentage tested was much lower in 
the Western region (12.1 percent, Figure 4).

As the size of operation increased, so did the percentage 
of operations that tested resident equids for EIA. 
Twenty-seven percent of operations with one or two 
equids to 76 percent of operations with 20 or more 
equids had a Coggins or other test performed for EIA on 
resident equids in 1997 (Figure 5).

The percentage of operations that tested for EIA also 
varied greatly by type of operation. Approximately 
one-third of farm/ranch operations (30.5 percent) and 
operations identified as primarily a residence with 
equids for personal use (39.1 percent) reported having 
EIA testing performed on resident equids. Nearly four 
out of five operations that were primarily 
boarding/training (79.1 percent) and breeding facilities 
(78.7 percent) had a Coggins or other test performed for 
EIA on resident equids. On average, each resident equid 
that was tested for EIA was tested slightly more than 
one time during 1997.

Average owner/operators’ estimates of their total costs 
for EIA testing, including veterinary fees, costs of 
transporting equids for testing, and laboratory expenses, 
amounted to $24.65 per test for 1997. When multiplied 
by the total number of EIA tests performed in the U.S. 
during 1997 (1.37 million), equine owner/operators are 
estimated to have spent $34 million nationally for EIA 
testing.

For more information on the Equine '98 Study, contact: 
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