

United States Department of Agriculture Animal and Plant Health Inspection Service September 1998

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.

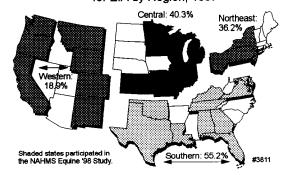
NAHMS collected data on equine health and management practices from a representative sample of equine operations in 28 states¹. These operations represented about three-fourths of the equine population and three-fourths of operations with equids in the U.S. For this study, equids were defined as horses, 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.

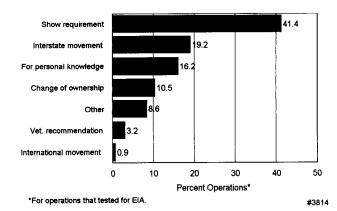
The Southern region had the largest percentage (55.2 percent) of operations that tested resident equids for EIA in 1997 (Figure 1). Resident equids were those animals for which the operation was a home base as opposed to visiting animals. The Western region had the smallest percentage (18.9 percent)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

Figure 1
Percent of Operations That Tested Resident Equine
for EIA by Region, 1997



Percent of Operations* by Reason for EIA Testing, 1997



Alabama, California, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Virginia, Washington, Wisconsin, and Wyoming.

interstate movement regulations (19.2 percent of operations).

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.

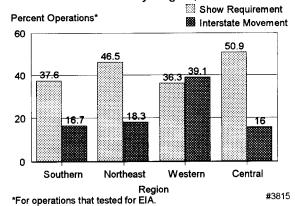
Overall, 35.6 percent of resident equids were tested for EIA in 1997. The Southern region tested the largest percentage of resident equids for EIA in 1997 (49.7 percent), while the percentage tested was much lower in the Western region (12.1 percent, Figure 4).

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).

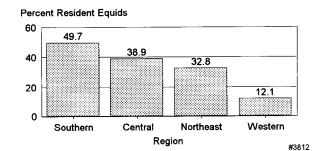
The percentage of operations that tested for EIA also varied greatly by type of operation. Approximately one-third of farm/ranch operations (30.5 percent) and operations identified as primarily a residence with equids for personal use (39.1 percent) reported having EIA testing performed on resident equids. 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.

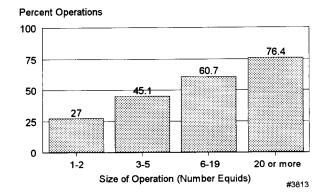
Figure 3
Percent of Operations* that Tested for EIA
Because of Show Requirements and Interstate
Movements by Region, 1997



Percent of Resident Equids Tested for EIA by Region, 1997



Percent of Operations that Tested Resident Equids for EIA by Size of Operation, 1997



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

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