

## Trends in Equine Infectious Anemia (EIA) Testing, 1998–2005

One goal of the U.S. Department of Agriculture's (USDA) National Animal Health Monitoring System's (NAHMS) Equine 2005 study was to compare trends in EIA testing in the United States from 1998 to 2005.

For the Equine 2005 study, NAHMS collected data on equine health and management practices from a representative sample of operations with 5 or more equids in 28 States within 4 regions.\* The 28-State target population represented 78.0 percent of equids and 78.6 percent of operations with 5 or more equids in the United States. Interviews were conducted from July 18 through August 12, 2005, and 2,893 equine operations provided data on equine health and management.

Some estimates in this information sheet are compared to estimates from Equine '98, NAHMS' previous study of the U.S. equine industry. For the evaluation of changes and trends, the data used to generate estimates based on the Equine '98 study were re-analyzed to represent operations with five or more equids present on January 1, 1998. Therefore, estimates for comparing the two study periods are based on 3 points of commonality: same 28 States, data collection performed by National Agricultural Statistics Service enumerators, and same reference population of 5 or more equids.

Of operations participating in the Equine 2005 study, 40.3 percent identified their primary function as "farm/ranch" and 37.0 percent identified their primary function as "residence with equids for personal use." A resident equid was defined as an equid that spent or was expected to spend more time at the operation than at any other operation, whether or not it was present at the time of the interview. The operation was its home base.

### \*Regions:

**West:** California, Colorado, Montana, New Mexico, Oregon, Washington, and Wyoming

**Northeast:** New Jersey, New York, Ohio, and Pennsylvania

**South:** Alabama, Florida, Georgia, Kentucky, Louisiana, Maryland, Oklahoma, Tennessee, Texas, and Virginia

**Central:** Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, and Wisconsin

### EIA testing

The percentages of operations that tested at least one equid for EIA were similar in 1998 and 2005, with 58.7 percent of operations testing at least one equid in 1998 and 54.1 percent doing so in 2005. The overall percentages of resident equids tested on all operations during the previous 12 months were similar in 1998 and 2005 (36.6 and 37.6 percent, respectively). For operations that tested at least one resident equid during the previous 12 months, the percentages of equids tested were similar at 55.6 percent in 1998 and 59.1 percent in 2005.

The official number of EIA tests reported by USDA has increased over time, particularly since the late 1990s. However, the percentage of horses tested for EIA based on estimates from the NAHMS studies (1998 versus 2005) changed only slightly. There are several potential explanations. For example, horses that had more than one test in a year would create discrepancies in estimates. In addition, based on estimates from the Census of Agriculture from 1997 to 2002, the equine population has increased. This increase could have led to more tests being performed, while the overall percentage of horses tested remained the same. Finally, the NAHMS studies do not estimate health issues for all sectors of the equine industry. For example, horses at racetracks are not included in the studies. An increase in testing in that sector of the industry would have led to an increase in the number of tests performed, which would not be captured in NAHMS percentage estimates. Similarly, when comparing 1998 and 2005 estimates, NAHMS included only operations with five or more equids. An increase in percentage of horses tested on operations with fewer five equids is not reflected in the NAHMS trends estimates.

The average cost of testing for EIA per test, including call fee or cost of transporting the equid, increased from \$22.95 in 1998 to \$27.33 in 2005, or 19.1 percent.

The primary reasons for testing for EIA in 2005 cannot be directly compared with the primary reasons in 1998 because "facility (e.g., boarding, breeding) requirement within State" was listed as an option for testing in 2005 but not in 1998. For 2005, show or event requirement within State was cited by 38.0 percent of

operations as the primary reason for testing, followed by interstate movement (between two or more States) and personal knowledge (19.2 and 18.8 percent of operations, respectively). Facility requirement within State was the primary reason given for EIA testing by 11.1 percent of operations and change of ownership within State was reported by 8.2 percent of operations. Only 1.0 percent of operations reported suspicion of equine illness and 0.3 percent of operations gave international movement as the primary reasons for EIA testing. Finally, 3.4 percent of operations cited "other" as their primary reason for EIA testing.

**For operations that tested for EIA, percentage of operations by primary reason for testing:**

Primary Reason for Testing	Percent Operations			
	1998		2005	
	Pct.	Std. Error	Pct.	Std. Error
Change of ownership within State	14.5	(2.2)	8.2	(0.7)
Show or event requirement within State	42.2	(3.0)	38.0	(1.3)
Facility (e.g., boarding, breeding) requirement within State	N/A*		11.1	(0.8)
Interstate movement (between two or more States)	21.5	(2.5)	19.2	(1.1)
International movement	1.3	(0.6)	0.3	(0.1)
Personal knowledge	12.1	(1.8)	18.8	(1.1)
Suspicion of equine illness	1.7	(0.8)	1.0	(0.3)
Other	6.7	(1.4)	3.4	(0.5)
Total	100.0		100.0	

\*Facility not an option in 1998.

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