

Highlights of Equine 2005 Part II: Changes in the U.S Equine Industry, 1998-2005

Part II of the U.S. Department of Agriculture's National Animal Health Monitoring System's (NAHMS) Equine 2005 study provides a comprehensive look at trends in the U.S. equine industry. Section I of the report presents demographic changes of the U.S. equine population from a historical perspective using data provided by the National Agricultural Statistics Service (NASS), Census of Agriculture, and U.S. Bureau of Census. Section II includes historical data regarding equine infectious anemia, West Nile virus, and vesicular stomatitis. Results of the NAHMS' 1998 and 2005 equine studies in Section III provide an overview of changes in U.S. equine management and health from 1998 through 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 divided into four 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.

For the evaluation of changes and trends in the U.S. equine industry, 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 1998 and 2005 estimates are based on 3 points of commonality: same 28 States, data collection performed by NASS 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.

The following are highlights excerpted from Part II of the NAHMS Equine 2005 study: Changes in the U.S. Equine Industry, 1998-2005. Released in February 2007, this report provides participants, industry, and animal-health officials with information on the Nation's equine population that will serve as a basis for education, service, and research.

Section I highlights

There is no accurate estimate of the current total number of equids in the United States because the number of equids on nonfarm operations does not exist. On-farm equine estimates are conducted every 5 years as part of the Census of Agriculture.

- Census of Agriculture on-farm horse and pony numbers peaked in 1910 at 19.8 million head. It is likely that the number of horses and ponies in the United States declined rapidly during the 1920s and 1930s because motorized vehicles replaced them as a means of transportation. By 1950, the number of horses and ponies was only about one-third of what it was in 1925. The decline continued until the low of 1.6 million head in 1974. As of 2002, there were 3.6 million horses and ponies in the United States, the highest number since 1950.
- Although the value of U.S. livestock exports fluctuates greatly, the value of U.S. equine exports exceeded the value of U.S. swine, cattle, poultry, and sheep live-animal exports each year from 1996 through 2005.

Section II highlights

- Data exist from 1972 to 2005 on the number of equine infectious anemia (EIA) tests performed by each State annually and the percentage of those tests that were positive. The number of EIA tests has generally increased, with over 2 million tests performed in 2005.
- The percentage of positive EIA tests among those tested declined steadily from nearly 4 percent in 1972 to less than 0.1 percent in 2005, with the most dramatic decline occurring from 1972 to 1978.

*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

- Current information and surveillance data on West Nile virus (WNV) is available at: <http://www.aphis.usda.gov/vs/nahss/equine/wnv>.

Table 1. Number of U.S. Equine WNV Cases, 1999–2005:

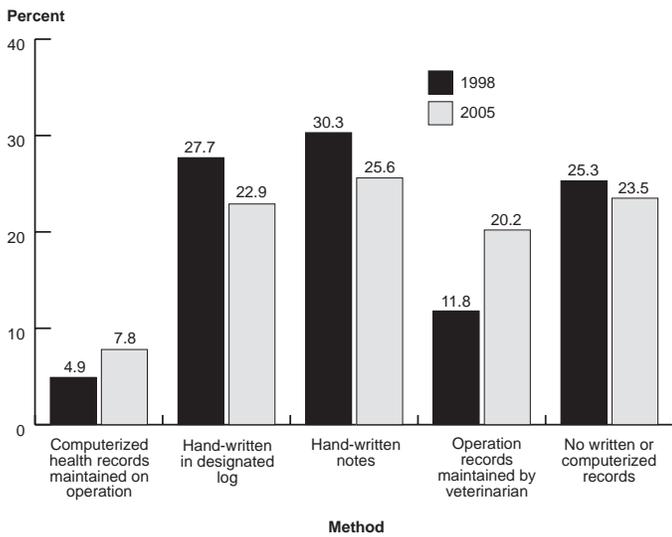
| 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------|------|------|--------|-------|-------|-------|
| 25 | 60 | 738 | 15,257 | 5,181 | 1,406 | 1,088 |

- Maps included in the report illustrate the initial movement of WNV outside of New York from 2000 to 2005.
- Vesicular Stomatitis (VS) is a rhabdovirus that causes vesicles and subsequently ulcers to form primarily on the lips and in the mouths of infected livestock. Five VS outbreaks occurred in the United States from 1995 through 2005. In 2005, nine States had premises with livestock affected with VS. This was the largest outbreak of VS in the past decade, based on both number of premises affected and number of States with premises impacted.

Section III highlights

- The percentage of operations that used computerized records as the primary method of recording equine health information increased from 4.9 percent of operations in 1998 to 7.8 percent in 2005 (figure 1).

Percentage of Operations by Primary Method of Recording Equine Health Information



- The percentage of operators that had at least heard of EIA increased from 1998 to 2005 (table 2).
- Veterinary Services began an educational initiative regarding EIA in 1996, which included an educational video and brochure. It is possible this initiative, along with other EIA-educational efforts, improved operators' familiarity with EIA.

Table 2. Percentage of operations by familiarity with EIA:

| Familiarity | Percent Operations | | | |
|------------------------------------|--------------------|------------|-------|------------|
| | 1998 | | 2005 | |
| | Pct. | Std. Error | Pct. | Std. Error |
| Had not heard of it before | 16.7 | (1.9) | 9.8 | (0.6) |
| Recognized the name, not much else | 14.5 | (1.6) | 18.7 | (0.8) |
| Knew some basics | 23.9 | (2.1) | 25.9 | (0.9) |
| Knowledgeable | 44.9 | (2.7) | 45.6 | (1.0) |
| Total | 100.0 | | 100.0 | |

- The average cost of an EIA test increased from \$22.95 in 1998 to \$27.33 in 2005, a \$4.38 (19.1 percent) difference.
- The percentages of operations that vaccinated resident equids during the previous 12 months were similar in 1998 and 2005: about three-fourths had given at least some type of vaccine to resident equids during the previous 12 months (table 3).

Table 3. Percentage of operations that administered any vaccine to resident equids during the previous 12 months:

| Percent Operations | | | |
|--------------------|------------|---------|------------|
| 1998 | | 2005 | |
| Percent | Std. Error | Percent | Std. Error |
| 75.1 | (2.4) | 75.9 | (0.9) |

For more information, contact:
 USDA:APHIS:VS:CEAH
 NRR Building B, M.S. 2E7
 2150 Centre Avenue
 Fort Collins, CO 80526-8117
 970.494.7000
 E-mail: NAHMS@aphis.usda.gov
<http://nahms.aphis.usda.gov>

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