Collecting Vital Information on Animal Health

NAHMS data on producer information needs assessment. (2009)

Swine (1992–93, and 2006)


Beef feedlot (1994 and 1999)


Sheep (1996 and 2001) and quails (2009)


Horses and other equids (1998 and 2007)

What is NAHMS?

NAHMS is a program that conducts national studies by combining the efforts of multiple government agencies, producers and other industry representatives, academic institutions, and public and animal health professionals. These efforts are organized by a multidisciplinary group within the Centers for Epidemiology and Animal Health, a program within the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS). This group is composed of veterinary epidemiologists, livestock commodity specialists, statisticians, a trade economist, a technical communicator, and technical support staff.

What Is a NAHMS National Study?

A national study generally focuses on one animal commodity or production type (such as one production or beef cow-calf operations). The study typically consists of one or more questionnaires and might include collection of biological samples (such as blood, feces, milk, feed) related to the study objectives. To be considered national in scope, each study is designed to include the States that represent at least 70 percent of the targeted animal population and at least 50 percent of operations with the targeted animal in the United States. A study typically includes fewer than 25 States, enabling more efficient use of resources.

The interval between studies for each commodity or production type depends on information needs. In general, swine, dairy, beef, and poultry commodities are studied about every 5 years, while other commodities are studied at longer intervals. Since 1990, NAHMS has conducted multiple national studies of the following commodity groups:


Beef feedlot (1994 and 1999)


Sheep (1996 and 2001) and quails (2009)


Horses and other equids (1998 and 2007)

What Is the Study Process?

From initial planning to full reporting of results, each study takes about 4 years. A new study begins roughly every year, so several studies are in progress at any time.

1. Information needs assessment. To help focus the study and define the priority objectives, stakeholders from industry, academia, Federal and State governmental agencies, and public and animal health organizations provide input to identify critical information gaps in animal health and management.
Questionnaire development and sampling design. Questionnaires are written and pretested to ensure that they will capture the data needed to fulfill the study’s objectives and yield thorough, accurate information. NAHMS works with USDA’s National Agricultural Statistics Service (NASS) to randomly select operations by size for potential participation and to ensure that they accurately and precisely represent the targeted national livestock and poultry populations.

Field implementation. After specific training, NASS personnel contact selected producers to complete the questionnaire. If the study includes additional components, interested producers provide written consent allowing Federal and State animal-health personnel to contact them about continuing in the study. Questionnaires are usually completed during in-person interviews. If the study includes biological sampling, animal-health professionals and/or the producers themselves collect and ship the samples to designated veterinary diagnostic laboratories. Producers subsequently receive results of biological sample testing.

Participation in NAHMS national studies is voluntary, and producer identities and the data are treated as confidential business information. No information is released that would enable the identification of individual producers.

Data validation and analysis. After ensuring that the data are valid, NAHMS veterinary epidemiologists and statisticians analyze them, beginning with simple methods (such as percentages and averages) that summarize the findings. Subsequently, more detailed statistical methods are used to examine the data, often to look for relationships among management practices and disease occurrence. Analysts adjust for statistical complexities associated with study design and operations that do not participate in certain aspects of the study.

Report preparation and distribution. NAHMS statisticians, commodity specialists, and epidemiologists work together to generate summaries that reflect the national and regional populations of animals or operations and interpret the results. Primary products from the study include descriptive reports and concise information sheets. Descriptive reports contain tables, graphs, and some textual interpretation of study results. Information sheets briefly address very specific topics, such as vaccination or biosecurity practices. These products undergo extensive review by subject-matter specialists before they are released.

For More Information...
To access reports from previous NAHMS national studies or information on upcoming studies, visit the NAHMS Web site at http://www.aphis.usda.gov/nahms.

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