

Swine 2006 Study Provides Snapshot of National Herd

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Swine 2006 is the National Animal Health Monitoring System's (NAHMS) fourth in-depth study of the U.S. swine population. NAHMS studies provide a snapshot of the national herd in terms of health status and management practices through a series of personal interviews and on-farm biological collections. In addition, industry changes are identified via comparison to key parameters from previous NAHMS swine studies.

For Swine 2006, NAHMS conducted a thorough needs assessment to determine the information needs of the swine industry, researchers, and Federal and State governments. A needs assessment survey was administered in October 2005 through the American Association of Swine Veterinarians and the National Pork Board. The survey was used to generate three broad study objectives:

- 1) Describe swine management practices related to inventories, housing practices, disease prevention, and mortality for four levels of production: gestation, farrowing, nursery, and grower/finisher;
- 2) Determine the prevalence and risk factors for respiratory, neurologic, gastrointestinal, and systemic pathogens found in nursery and grower/finisher pigs and examine vaccine and antibiotic usage by pork producers to control diseases and production parameters; and
- 3) Describe changes in management practices affecting pork safety and animal health in swine operations from 1990 through 2006.

These objectives were used as a springboard to develop the entire study design. The sample design called for contacting 5,000 producers from 17 major swine-producing States. Output tables were created that identified the estimates needed to meet the objectives. Specific questions were then written to obtain data for the estimates.

The first questionnaire was administered at selected producer sites in August/September 2006 by enumerators from the National Agricultural Statistic Service (NASS). This questionnaire included questions spanning a 6-month period on management practices (including housing), disease prevention measures, and production numbers (e.g., number of piglets weaned). Producers with 100 or more pigs who completed the first questionnaire and chose to continue in the study will be visited by veterinary medical officers (VMOs), who will administer two other questionnaires and collect biologic samples from select operations.

The first VMO questionnaire includes specific, detailed questions pertaining to disease problems in the herd, control measures used for respiratory diseases (management strategies and vaccination), antibiotics used, and symptoms seen in the herd suggestive of newer diseases such as postweaning mortality and wasting syndrome, also known as

porcine circovirus associated disease. The second VMO questionnaire includes in-depth questions about biosecurity practices and follow-up questions to the NASS questionnaire.

Biologic samples will be collected from select producers. Blood from grower/finishers will be collected and tested for porcine reproductive and respiratory syndrome and swine influenza virus (H1N1 and H3N2). Feces from grower/finishers at a subset of sites will be tested for *Salmonella* and *Campylobacter*. All data collection will end February 28, 2007.

Swine 2006 will provide information on nearly 94 percent of the U.S. swine herd on operations with 100 or more pigs. Data collected during the study will be used as a resource for producers, private practitioners, and university extension services. Swine 2006 will maximize the generation of scientifically valid national estimates and application of this unique knowledge to:

- Educate the producers and practitioners of tomorrow,
- Shape national policy by pork leaders and government agencies,
- Measure the impact of disease, and
- Conduct basic epidemiologic research on diseases impacting swine and/or human health. The first Swine 2006 report will be released in spring 2007.