Highlights of Swine 2006 Part IV: Changes in the U.S. Pork Industry, 1990-2006

In 2006, the National Animal Health Monitoring System (NAHMS) conducted a study of U.S. swine operations. The Swine 2006 study collected data on swine health and management practices from 17 of the Nation's major swine States.* These States represented 94 percent of U.S. swine operations and inventory on operations with 100 or more pigs.

The following highlights were excerpted from the report released in December 2008: "Swine 2006 Part IV: Changes in the U.S. Pork Industry, 1990-2006". Part IV identifies trends in the U.S. swine industry and specifically addresses changes identified from four NAHMS swine studies: the 1990 National Swine Survey, Swine '95, Swine 2000, and Swine 2006.

Demographic changes

- U.S. hog and pig inventory peaked in 1959 at nearly 68 million head. The number of hog sites declined dramatically starting in 1959. Estimates in subsequent years consistently remained near 55 million head, increasing to 60.4 million head in 2002. The 2002 Census of Agriculture showed the number of swine sites at only 1.8 percent of those in 1900, while the inventory number of head was nearly the same. As a result, the average herd size increased from fewer than 20 head in the early and mid 1900s to 766 head in 2002.
- The number of U.S. swine sites has decreased steadily since 1990. In 2000, the number of swine sites in the United States had decreased by two-thirds of the 1990 number, and in 2006 the number of swine sites was fewer than one-fourth the number reported in 1990.
- December 1, 2006, inventory levels were considerably above December 1, 1990, levels, especially in the three States with the most pigs—Iowa, North Carolina, and Minnesota—as well as many of the Western States. Declining inventories were shown in the traditional hog-raising States of Illinois, Indiana, Ohio, South Dakota, and Wisconsin.

Health and productivity changes

- Since 1990, the number of pigs born alive per litter has increased by 1.33 piglets per litter, and total born per litter has increased by 1.50 piglets per litter. The number of pigs weaned per litter increased by about one pig per litter from 1990 to 2006.
- Stillbirths and mummies as a percentage of total born per litter increased steadily from 1995 to 2006. In all four NAHMS swine studies, producers identified piglets lain on as the leading cause of preweaning deaths.
- In breeding herds, the percentage of operations in which PRRS was diagnosed by a veterinarian or a laboratory was unchanged from 2000 to 2006, and PRRS was the most prevalent of the listed diseases diagnosed by a veterinarian or laboratory during the previous 12 months (table 1).

* Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Wisconsin.

Table 1. Percentage of Sites in Which the Following Diseases were Diagnosed in the *Breeding Herd* by a Veterinarian or Laboratory During the Previous 12 Months

	Percent Sites	
Disease	**Swine 2000**	**Swine 2006**
PRRS	16.2	18.8
APP	1.5	3.2
Mycoplasma pneumonia	7.3	8.8
Roundworms	7.0	2.6
Traditional swine flu (H1N1)	6.8	5.6
Gastric ulcers	4.7	9.3
New swine flu (H3N2)	4.5	4.8
Glasser's disease	3.0	1.8
Parvovirus	2.3	3.8
Erysipelas	1.9	3.9

Management changes

- The percentage of sites that used artificial insemination as the predominant mating technique in sows and gilts increased from 2000 (24.3 and 28.7 percent, respectively) to 2006 (40.1 and 41.8 percent, respectively).
- The percentage of sites that used continuous flow management in the grower/finisher phase decreased steadily from 75.1 percent of sites in 1990 to 26.1 percent in 2006.
- Regular use of influenza vaccines more than doubled in breeding females between 2000 and 2006 (table 2).

Table 2. Percentage of Sites with the Following Production Phases During the 12 Months Prior to the Survey[1] that Usually Vaccinated Within the Production Phases Against the Listed Diseases

	Breeding Females		Weaned Pigs[2]	
Disease	**Swine 2000**	**Swine 2006**	**Swine 2000**	**Swine 2006**
Mycoplasma pneumonia	20.9	34.9	40.0	35.6
PRRS	37.1	27.3	5.2	5.4
Swine influenza H1N1	11.2	27.9	4.8	9.5
Swine influenza H3N2	10.6	27.8	5.0	8.7

[1]August 21-October 31, 1999, and September 5, 2005-March 15, 2006.
[2]Weaned pigs are those in a nursery or grower/finisher stage.

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