



Swine Nursery Management

A nursery is a facility or building designed specifically to house newly weaned pigs until they reach the grower/finisher stage. Nursery management is critical to a healthy, good performance of pigs.

The USDA's National Animal Health Monitoring System (NAHMS) collected data on random sample of swine production sites in 17 states¹ as part of the Swine 2000 study. These sites represented 94 percent of the U.S. pig inventory and 92 percent of U.S. pork producers with 100 or more pigs. Overall, 2,499 swine production sites participated in the study's first interview from June 1, 2000, through July 14, 2000. A second interview was completed by 895 of these sites between August 21, 2000, and November 3, 2000. For estimates in this report, small, medium, and large sites refer to sites with less than 2,000, 2,000 to 9,999, and 10,000 or more pigs in total inventory, respectively. Animal-level estimates reported here are based on a June 1, 2000, inventory. Some comparisons in this report are made to findings from the NAHMS Swine '95 study conducted five years previously. For example, the NAHMS Swine 2000 study found that 50.4 percent of swine sites had a nursery phase of production, down from 64.2 percent reported in 1995.

The Swine 2000 study found that weaned pigs were removed from farrowing facilities and placed into "separate-site" nursery facilities on 36.4 percent of sites. The site average age of pigs entering the nursery ranged from 18 to 26 days across size of site.

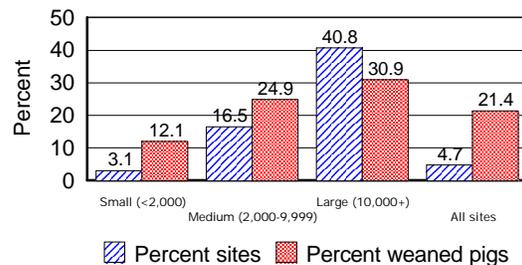
Pigs entered the nursery at a younger age on medium and large sites than on small sites; however, the average age that pigs left the nursery was similar across different sized sites. The average time spent in the nursery ranged from 36 to 46 days. Because pigs are typically weaned earlier and enter the nursery at a younger age on large and medium sites, these pigs spent more time in nurseries on average than pigs on small sites (Table 1).

Table 1. Average Age (in Whole Days) of Pigs Entering and Leaving the Nursery, and Average Number of Days Spent in the Nursery, by Size of Site

Age Leaving, Entering, and Time Spent in Nursery	Number of Days Size of Site (Total Inventory)		
	Small (Less than 2,000)	Medium (2,000-9,999)	Large (10,000 or more)
Average age when entering nursery	26	18	19
Average age when leaving nursery	62	63	65
Average time spent in nursery	36	44	46

Segregated early weaning (SEW) is an important disease-control management strategy. For this study, sites that had a **maximum** weaning age of 20 days or less and moved weaned pigs to a separate-site nursery were defined as SEW sites. Overall, only 4.7 percent of sites used SEW; however, many more large sites used SEW than medium or small sites. Because of this, 21.4 percent of all weaned **pigs** and 30.9 percent of pigs on **large sites** were raised using SEW (Figure 1).

Percent Sites* and Percent Pigs Where the Maximum Age of Weaning was 20 Days or Less and Pigs Were Removed to a Separate-Site Nursery**



*Sites with farrowing phase

**Based on number of pigs weaned

Figure 1.

¹Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Wisconsin

problems such as *Streptococcus suis*, and conditions such as poor doers, fighting and ruptures/hernias (Figure 2). In 1995, respiratory problems were also the most common cause of death loss, followed by unknown problems.

Nursery Disease

During the 12 months prior to the Swine 2000 study, producers reported that the most common disease problems present on sites with nursery-age pigs were *Streptococcus suis* (meningitis), greasy pig disease (*Staphylococcus hyicus*), *E. coli* diarrhea, mycoplasma pneumonia, roundworms, and porcine reproductive and respiratory syndrome (PRRS) (Table 2). Except for roundworms, these disease problems were more common on sites with 2,000 or more pigs than on sites with less than 2,000 pigs. Between 5.7 to 7.3 percent of sites reported that either Glasser's disease (*Haemophilus parasuis*), traditional swine flu (SIV H1N1), *Salmonella*, APP (*Actinobacillus pleuropneumonia*), or post-weaning multi-systemic wasting disease (PMWS or Circovirus) were present in their nursery-age pigs during the previous 12 months.

Nursery pigs were raised in facilities that allowed no access to the outside on 84.1 percent of sites, which accounted for 97.7 percent of all nursery pigs. In comparison, Swine '95 found that 77.9 percent of sites raised nursery pigs in facilities that allowed no outside access, which accounted for 93.6 percent of all nursery pigs at that time.

All-in, all-out management means that **every** single animal is removed from a room, building, or site, followed by **cleaning** and **disinfection** of swine areas. Most nursery pigs (87.4 percent) were raised in facilities with all-in, all-out management. These pigs were on 60.2 percent of sites with a nursery phase. Of those sites with a nursery phase, 24.4 percent used all-in, all-out management by **room**; 32.3 percent by **building**; and 3.5 percent by **site**.

Large sites were more likely to raise nursery pigs under all-in, all-out management than small sites (90.5 percent vs. 54.7 percent). For 2000, only 32.3 percent of sites used a continual pig flow to manage their nursery facility, compared to 45.9 percent in 1995.

Nursery Death

Disease and death loss in nurseries can account for sizable economic losses to producers. In the Swine 2000 study, relative to the number of pigs entering the nursery, 2.6 percent of nursery-age pigs died during the 6-month period from December 1999 to May 2000, similar to the 2.4 percent found in Swine '95. There was no significant difference in the percent of nursery-age pigs that died during this same time period on sites that used SEW and on those that did not.

In 2000, respiratory problems were the most common cause of nursery pig death loss, followed by other known

Figure 2.

Percent of Nursery Deaths from December 1999 to May 2000, and December 1994 to May 1995, by Producer-Identified Cause

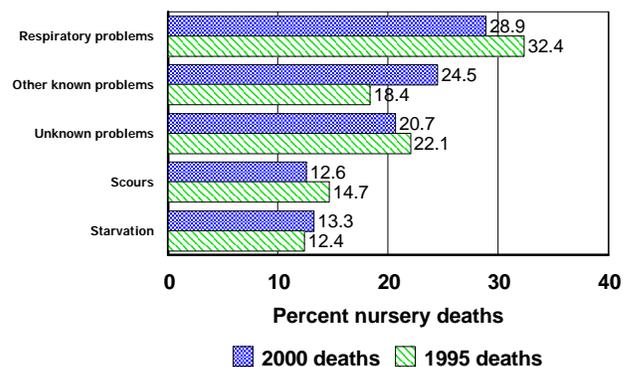


Table 2. Top Six Disease Problems Present During the last 12 Months on Sites that had Nursery Pigs, by Size of Site

Disease	Percent Sites			
	Size of Site (Total Inventory)			
	Small (Less than 2,000)	Medium (2,000- 9,999)	Large (10,000 or more)	All Sites
<i>Streptococcus suis</i> (meningitis)	24.0	64.9	76.7	31.6
Greasy pig disease	21.3	43.9	34.2	25.3

<i>E. coli</i> diarrhea	22.1	32.1	40.7	24.0
Mycoplasma pneumonia	14.6	41.5	52.7	19.6
Roundworms	20.9	4.5	6.9	18.0
PRRS	13.4	33.8	58.0	17.5

For more information, contact:
Centers for Epidemiology and Animal Health;
USDA:APHIS:VS, attn. NAHMS, 555 South Howes,
Fort Collins, CO 80521, (970) 490-8000¹
E-mail: NAHMSweb@usda.gov
[Http://www.aphis.usda.gov/vs/ceah/cahm](http://www.aphis.usda.gov/vs/ceah/cahm)

¹Beginning May 20, 2002, our new address and phone number will be: 2150 Centre Ave. Bldg. B., Fort Collins, CO 80526 -- (970) 494-7400.

N350.0302