Survey Training

2021 NAHMS Swine Large Enterprise Survey

United States Department of Agriculture
National Agricultural Statistics Service

NOD-Training Group
June 2021
Two Swine Studies in 2021:

Small Enterprise Study  
(Operations with fewer than 1,000 head)

Large Enterprise Study  
(Operations with 1,000 head or more)
Who are we doing this for?

National Animal Health Monitoring System (NAHMS). NAHMS is an information gathering and disseminating organization within the Animal and Plant Health Inspection Service (APHIS), an agency of the U.S. Department of Agriculture.

The purpose of the NAHMS program is to collect and analyze animal health data to provide current and scientifically sound information on the health status of U.S. livestock and poultry.
Objectives of the study

- Describe current U.S. swine production practices for gestation, farrowing, nursery, grower/finisher and wean-to-finish phases, specifically as they relate to housing, productivity, biosecurity and morbidity and mortality prevention.
- Determine the producer reported prevalence of select respiratory, neurologic, gastrointestinal, systemic and foodborne pathogens found in weaned market pigs.
- Describe antimicrobial use patterns in pigs from postweaning to market age
- Evaluate the presence of select pathogens and characterize isolated organisms from biological specimens (feces, oral fluids)

Large Enterprise Study to be conducted in 13 states. Will represent more than 90% of the U.S. herds with 1,000 or more swine.
Rough Study Timeline

Week of June 14
- Pre-survey packets mailed to operations

June 28-August 2
- Phase I enumeration (telephone)

August 23
- Turnover of information to NAHMS for Phase II

September 23-January 29
- Phase II enumeration

All Phase II enumeration will be done by NAHMS
<table>
<thead>
<tr>
<th>Survey Packet to be mailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Enterprise Survey – Site Selection Form (LESSF)</td>
</tr>
<tr>
<td>Selection letter</td>
</tr>
<tr>
<td>Launch sheet</td>
</tr>
<tr>
<td>Biological benefits sheet</td>
</tr>
<tr>
<td>Industry support letters</td>
</tr>
<tr>
<td>Phase 2 Survey Summary</td>
</tr>
</tbody>
</table>
Selection Letter

June 14, 2021

Why are we contacting you?

You’ve been invited to participate in the National Swine 2021 Large Enterprise study, a collaborative effort between the USDA’s National Animal Health Monitoring System (NAHMS) and National Agricultural Statistics Service (NASS).

Study participation is voluntary and is supported by the National Pork Board, the National Pork Producers Council, and the American Association of Swine Veterinarians. NAHMS has partnered with these groups to produce a study designed to meet the data needs of the U.S. swine industry, and because you are among the select few swine producers in your State chosen to participate in this study, the information you provide will provide valuable insight to other swine producers.

Taking part in this important study is easy. Participants will be contacted by a NASS representative from June 28 through August 2, 2021, to complete the study’s Phase I questionnaire. During the visit you will be asked about the number of sites you use and/or your company use to raise pigs. If you use only one site, you will be asked to complete the questionnaire, and if you use more than one site to raise pigs, you will be asked to choose how many of your sites should be contacted to complete the questionnaire about the pigs raised on those specific sites.

Participants that complete Phase I will have the opportunity to participate in the study’s second phase. Phase II participants will be contacted by a veterinarian or animal health technician from USDA’s Veterinary Services to complete Phase II. If you complete both phases of the study, you will be eligible for free biological federal testing for Salmonella, E. coli, Campylobacter, and Listeria, and their antibiotic susceptibility, as well as free-level testing for Susana Valley virus.

How will information be used?

Information collected during the study can be used to obtain more funding for studying swine health issues and provide the U.S. swine industry with valuable data regarding how to better serve their producers through outreach, tools, and disease management programs. Data collected will also allow for the development of state and Federal plans for unified African Swine Fever outbreak response, if needed, and provide information on swine movement, feed, and veterinary protocols used on and off production sites, which will enhance USDA’s ability to plan for and respond to disease outbreaks.

Your responses will be kept confidential and will be available in aggregate form only, ensuring that no individual operation or producer can be identified, as required by Federal law. Study findings will be published in spring 2023 on the NAHMS website: [http://wwwAPHISUSDAgov/NAHMS](http://wwwAPHISUSDAgov/NAHMS). Thank you in advance for participating and for your support of U.S. agriculture. If you have any questions, please feel free to contact us at 866-424-7383.

Sincerely,

Gerald Tillman
Chief, Survey Administration Branch
Center for Epidemiology and Animal Health, USDA-APHIS-VS
(202) 720-3919

Amy Delgado
Associate Director, Monitoring and Surveillance
Center for Epidemiology and Animal Health, USDA-APHIS-VS
(865) 907-8150

PS: There are two documents in this mailing:
- This letter, letting you know that you have been selected to participate in the study, along with the attached questionnaire informational packet, which includes information detailing this study, and
- The questionnaire – the NAHMS Swine Large Enterprise Survey - Site Selection Form.
- Please keep these documents until you have completed the questionnaire with a NASS representative.
NAHMS Swine 2021 Large Enterprise Study

2021 Study Launch
August 2020

From July 2021 through January 2022, the U.S. Department of Agriculture’s (USDA) National Animal Health Monitoring System (NAHMS), in collaboration with the USDA’s National Agricultural Statistics Service (NASS), will conduct its sixth national study of U.S. large enterprise swine operations. This study will take an in-depth look at U.S. swine operations with 1,000 or more pigs and provide new information regarding health and management practices in the U.S. swine industry. Approximately 3,700 operations will be selected from 13 of the Nation’s top swine-producing States (Figure 1) representing about 90 percent of U.S. swine operations with 1,000 or more pigs.

Study Objective

The Swine 2021 Large Enterprise study is designed to provide participants and industry stakeholders with benchmarking information on the U.S. swine industry. Information collected will continue to contribute to critical epidemiologic surveillance that will inform disease management and preparedness strategies to safeguard the swine industry.

Study objectives were developed based on multiple focus group discussions with industry representatives from the National Pork Board, National Pork Producers Council, and the American Association of Swine Veterinarians, and through input from industry stakeholders via an online survey. This study will:

- Describe current U.S. swine production practices related to housing, productivity, biosecurity, and morbidity and mortality prevention.
- Determine the producer-reported prevalence of select pathogens in treated market pigs.
- Describe antimicrobial stewardship and use patterns, and
- Evaluate the presence of select economically important pathogens, and characterize isolated organisms from biological specimens.

![Figure 1. States participating in the NAHMS Swine 2021 Large Enterprise Study](image)

Benefits to Participating

The U.S. swine industry will benefit from this study by having current scientifically valid estimates available to:

- Provide transparent, credible information on U.S. swine industry practices to help counter misinformation.
- Aid in understanding disease preparedness strengths and vulnerabilities.
- Assist policymakers and industry stakeholders in making informed decisions.
- Assist researchers and private enterprise to focus on issues related to swine health and productivity.
- Assist economic analysis of the health and productivity of the U.S. swine industry, and
- Identify educational needs related to swine health.

NAHMS provides up-to-date, comprehensive snapshots of swine health and production practices of the U.S. swine industry. The valuable information gleaned from this study is only made possible and credible by industry-wide cooperation of pork producers and industry representatives. Help support this effort and strongly encourage everyone’s cooperation, if selected to participate.

Dr. John Wadlett, DVM, MBA

Free Biologics Testing

For producers that fully participate in the study, free Salmonella, E. coli, Campylobacter, and Escherichia coli fecal cultures and antimicrobial susceptibility testing will be offered for grower-finisher pigs. In addition, additional fluid and tissue samples collected during the study will result in samples being commercially analyzed for various pathogens.

Scientific Approach

NAHMS was established to collect accurate and valuable information on animal health and management in the United States. NAHMS studies are national in scope, science-based, statistically valid, collaborative, voluntary, and anonymous.

Confidentiality

Because NAHMS studies rely on voluntary participation, the privacy of every participant is protected. Only those collecting study data know the identity of respondents. No assurance of contact information will be associated with individual data, and no data will ever be reported in a way that could reveal the identity of a participant. Data are presented only in an aggregate or summary manner.

For More Information

USDA-APHIS-VS-CCEA
NRCRC Building B, M.S. 287
1156 Centra Avenue
Fort Collins, CO 80526-6111
Phone: 970.498.7116
Email: NAHMS@aphis.usda.gov
Or visit NAHMS at http://www.aphis.usda.gov/nahms

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NAHMS Swine 2021 Study

**Timeline**

**PHASE I: NASS VISIT**
- General Swine Operation Questionnaire
  - Operations with multiple sites selected up to 3 breeding sites and 6 nonbreeding sites to represent their operation
- General Swine Farm (Site) Management Questionnaire
- Consent Form for Phase II
  - Producer consent for contact from Veterinary Services (VS)

**PHASE II: VS VISIT**
- Producer Agreement
- Producer consents to participation in questionnaires and each biologic test
- VS Questionnaire (Health and management data collection)
- Biologic Testing
  - Enteric Microbe Test: Detection, serotyping/speciation and susceptibility testing for Salmonella, E. coli, Campylobacter and Enterococcus for finisher pigs aged 26 weeks or more
  - Oral Fluids Virus Test: Detection of Nucleic acid presence for Seneca Valley virus

**PHASE III: REPORTS**
- Producer Reports
  - Operation-specific biologic test results mailed to producers in a sealed envelope
- Descriptive Reports
- Reference guides for benchmarking and analyzing trends in the industry
- Information Sheet
  - Focused analysis on important issues to the industry

**Safeguarding the U.S. Swine Industry**
- Collectively, swine producers: like you will play an important role in safeguarding the U.S. swine industry. Information provided in the Swine 2021 study will:
  - Provide transparent, credible information on U.S. swine industry practices to help counter misinformation and ultimately protect U.S. swine production.
  - Aid in preparedness strategies for foreign animal diseases such as African Swine Fever.
  - Facilitate trade negotiations by providing trading partners with a summary of the structure and health status of the U.S. swine industry.
  - Assist policymakers and industry stakeholders in making more informed decisions affecting the swine industry.

**Free Enteric Microbe Tests a $3,226 Value**
- Detection, serotyping and susceptibility testing of Salmonella
- Detection and susceptibility testing of E. coli
- Detection, speciation and susceptibility testing of Enterococcus

**Oral Fluids Virus Tests a $200 Value**
- Detection of Nucleic acid presence for Seneca Valley virus

**Biological testing costs include:**
- Diagnostic testing
- Confidential, descriptive report of results

*Values based on estimated average cost at diagnostic laboratories for testing 8 replicates for oral fluids and 10 fecal samples per farm*
April 3, 2021

The National Pork Board encourage your participation in the 2021 NAHMS swine study

Swine operations in 38 states will be contacted by the National Agricultural Statistics Service (NASS) starting in June 2021 and asked to participate in a national level study. This study focuses on the health, health practices and biosecurity employed by swine producers in this country. These confidential national studies have been occurring every 5-8 years for 20 years. National estimates of this type have found use in trade negotiations and providing objective information to the swine industry, policymakers and researchers of all types.

Originally this effort was to be forward in 2020. Because of production and market disruptions caused by the COVID-19 pandemic, this study has been moved to 2021. More information is available here.

Since 1990 the USDA’s National Animal Health Monitoring System (NAHMS) has published national (population) estimates of the nation’s livestock, poultry, and farmed aquatic animals in cooperation with commodity industry representatives and producers. The term “population estimates” means that when NAHMS publishes a percent, an average or a ratio the estimates apply directly to the target population under study. In research, a population estimate used for a sample size calculation is very difficult to get.

The NAHMS Swine 2021 study will give the swine industry 30 years of national snapshots. There are two components to the study, a large and a small. The large component will start with NASS starting the initial data collection in July 2021 with 50 representatives going out after harvest in the Fall of 2021. The target population is U.S. swine operations with 1,000 or more pigs and approximately 2,700 operations will be selected from 13 of the Nation’s top swine-producing States (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Pennsylvania and South Dakota). Free Salmonella, E. coli, Campylobacter and Enterococcus fecal cultures (from grower/finisher pigs) and antimicrobial susceptibility testing will be offered free to participating producers. In addition, oral (from grower/finisher pigs) fluid test results regarding the prevalence Salmonella A (SVA) will be offered.

The small component will occur June-August 2021. The target population is U.S. swine operations with fewer than 1,000 pigs. NAHMS hopes to provide new information regarding animal health and management practices used on these operations, as well as the alternative marketing strategies that some farms implement (e.g., show pigs, organic). Approximately 3,000 swine operations from 38 States will be asked to participate in the study. These states account for about 65 percent of U.S. swine operations with fewer than 1,000 pigs. This component will be a call in with telephone follow-up handled entirely by NASS.

April 5, 2021

To Potential NAHMS Swine 2021 Participants:

The American Association of Swine Veterinarians (AASV) and the National Pork Producers Council (NPPC) have reviewed and discussed the value of the USDA’s National Animal Health Monitoring System’s Swine Survey. The swine industry agrees there is a need for continuing to collect key data regarding the nation’s swine herds.

The National Animal Health Monitoring System (NAHMS) produces the only statistically valid, industry-wide national estimates of swine health, production practices, and general industry information. AASV, and NPPC support the efforts to perform the 2021 study. The information gained from previous NAHMS swine studies has been used in the following ways:

- Developing Educational Programs: The data collected during NAHMS swine studies has provided information used in the support of producer education programs and materials such as the Pork Quality Assurance Plus program.
- Setting Research Agendas: NAHMS estimates from previous swine studies have provided academic institutions and allied industries post production information that has been used for additional, more focused research.
- Informing Decision Makers about the U.S. Pork Industry: Data from the NAHMS swine studies have been used to inform regulatory, public health officials, and consumer groups about industry practices. Studies like these are a publicly available, non-biased source of information used to educate those who are highly critical of animal agriculture.
- Understanding Emerging and Preventing Foreign Animal Diseases: The NAHMS has enabled identification of at risk populations and practices and has provided a means for designing surveillance systems to address these specific populations.
- Supporting International Trade: The NAHMS results have been used on numerous occasions to maintain current international trade arrangements and to gain acceptance into new international markets. Data from NAHMS is considered to be credible for producing national level estimates on health, structure, and management of the US swine industry for interested trading partners. As the U.S. swine industry’s growth and economic well-being is dependent on trade, this type of information is vital.

The swine industry recognizes the need for this information and the value that NAHMS provides and urges producers and veterinarians to participate in the 2021 survey.

Respectfully submitted,

Jon Sorensen
President
National Pork Producers Council

Harry Sandil
Executive Director
American Association of Swine Veterinarians
Interviewer’s Manual

Read it! Know it! Keep it Handy!

Purpose
• Provide you with the tools to successfully administer the NAHMS Large Swine Survey Questionnaire

Contents
• Terms and definitions
• Detailed background information, objectives, benefits, and general timelines
• Enumerator procedures
• General question formats and responses
• Specific instructions for particular questions
Basic process for this survey

- Information packet mailed out to respondent
- Enumerator contacts respondent and completes the Site Selection Form (respondent is supposed to wait to be contacted by enumerator)
- Enumerator completes the Large Enterprise questionnaire for each site that was selected (either with the original respondent or with the contact at each site)
- If respondent gives consent, a vet with NAHMS will contact them to complete Phase II
- Survey results and biologic test results will be sent to respondent
First, make contact and complete site selection form

- Had respondent heard of this study prior to contact by NASS
- Did this operation own any swine between December 1, 2020 and May 31, 2021
  - If “No”, skip to conclusion
  - If “Yes”, continue
- Inventory broken out by type on June 1, 2021
  - Sows and gilts in breeding herd
  - Unmated gilts not yet in breeding herd
  - Nursing pigs
  - Etc.
First, make contact and complete site selection form

• For the purposes of this study, a "site" consists of a physically distinct area, an area with a unique address that has pig production facilities and support structures and typically specializes in a production phase.

• Do you raise swine at more than one site? Include contractee locations where hogs are raised for you as a contractor
  – If “NO”, complete contact info for that site in Section 3 (table 2 if breeding swine, table 4 if no breeding swine)
Hogs raised on more than one physical location

Hogs owned and raised at a single physical location

Operation (contractor)

Sites (contractees)

Operation and site the same
    (independent grower)
First, make contact and complete site selection form

- If more than one site:
  - How many sites (including contractee locations)?
  - How many of these were in this state?
  - How many sites had breeding swine?
  - How many sites had swine but no breeding animals?

Now you are ready to select the site/sites to complete the Large Enterprise questionnaire/s for
First, make contact and complete site selection form

The number of sites they have swine at will determine the number of questionnaires to complete.

1. Use the number of sites in this state with any Breeding swine (Section 2, Item 4a) and the table to determine the number of sites to select.

<table>
<thead>
<tr>
<th>If the number of sites in this state with any Breeding swine (Section 2, Item 4a) is</th>
<th>Then choose this many sites</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Write the site information for that site that is geographically closest to you into the table in 2 below.</td>
</tr>
<tr>
<td>2-49</td>
<td>2</td>
<td>Write the site information for both sites that are geographically closest to you into the table in 2 below.</td>
</tr>
<tr>
<td>50 or more</td>
<td>3</td>
<td>Write the site information for the three sites that are geographically closest to you into the table in 2 below.</td>
</tr>
</tbody>
</table>

2. Selected sites with Breeding swine.

<table>
<thead>
<tr>
<th>Site Number (Office Use)</th>
<th>Site Contact name and title</th>
<th>Phone number</th>
<th>Address</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2</td>
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</tr>
<tr>
<td>3</td>
<td></td>
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</tbody>
</table>

Max of three Large Enterprise questionnaires for sites with breeding swine
The number of sites they have swine at will determine the number of questionnaires to complete.

Can be a max of 9

3 breeding

6 non breeding

Max of six Large Enterprise questionnaires for sites with NO breeding swine

### Table 3: Number of Sites

<table>
<thead>
<tr>
<th>Number of Sites</th>
<th>Number of Sites to Select</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Write the site information for that site that is geographically closest to you into the table in 4 below.</td>
</tr>
<tr>
<td>2-10</td>
<td>2</td>
<td>Write the site information for both sites that are geographically closest to you into the table in 4 below.</td>
</tr>
<tr>
<td>11-49</td>
<td>3</td>
<td>Write the site information for the three sites that are geographically closest to you into the table in 4 below.</td>
</tr>
<tr>
<td>50 or more</td>
<td>6</td>
<td>Write the site information for the six sites that are geographically closest to you into the table in 4 below.</td>
</tr>
</tbody>
</table>

### Table 4: Selected Sites

<table>
<thead>
<tr>
<th>Site Number (Office Use)</th>
<th>Site Contact name and title</th>
<th>Phone number</th>
<th>Address</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
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<td>8</td>
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<tr>
<td>9</td>
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<td></td>
</tr>
</tbody>
</table>
SECTION 4 - CONCLUSION

1. Would you like the opportunity, or the opportunity for the selected sites above that raise hogs for you, to participate in Phase 2 of this study? This would include a Phase 2 questionnaire administered by a USDA-Veterinary Services veterinarian and the opportunity to obtain free testing for your hogs for fecal (Salmonella, E. coli, Enterococcus, Campylobacter) and oral (Seneca Valley Virus) pathogens. ......................

   1 ☐ Yes  3 ☐ No

If Item 1 = 3, then SKIP to Item 3; Otherwise, continue to Item 2

2. Please ensure the operator's name, phone number, address, and email address are all current on the label on the front page of this questionnaire. If they are not up to date, please update them below.

<table>
<thead>
<tr>
<th>Name: 4005</th>
<th>Address: 4007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone number: 4006</td>
<td>Email: 4008</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Code Item 4 accordingly if respondent refuses consent for Phase 2

Completed the selection form, but does not want outside people on the swine operation
Start a Large Enterprise Survey (LES) questionnaire for all selected sites

Enter the EPAID and associated site number on each form

The EPAID is just the identification number on the front of the Site selection form. The site numbers are in the tables on page 4

<table>
<thead>
<tr>
<th>5. For each of the selected sites, start a Large Enterprise Survey (LES) by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Writing in the EPAID in the correct box on the title page and</td>
</tr>
<tr>
<td>b. Fill in the Site Number with the Site Number from each of the selected sites in Tables 2 and 4 in Section 3 (one per LES) so that each LES has a unique Site Number.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. ENDING TIME (MILITARY):</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. DATE OF INTERVIEW:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_______________________</td>
</tr>
</tbody>
</table>
Now you are done with the Site Selection Form and ready to start on the Large Enterprise Questionnaires for each selected site.

Bill Farmer
Herdsmen
555-888-7040
5040 County Rd 9
Anytown, IL 99999

Best to call around 8:00 AM

Copy EPAID from front of Site Selection Form
Copy Site Number from table on page 4 of Site Selection Form
Section 1 – Site Inventory

- Asks for swine inventory on that particular site broken out by type
- Also asks the primary role of the contact person at that site

<table>
<thead>
<tr>
<th>LIST 1 - PRIMARY ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Contractor that owns the swine</td>
</tr>
<tr>
<td>2 - Contractee that raises or manages the swine</td>
</tr>
<tr>
<td>3 - Independent producer who markets on their own</td>
</tr>
<tr>
<td>4 - Independent producer who markets through a cooperative</td>
</tr>
<tr>
<td>5 - Farm manager/herdsman</td>
</tr>
<tr>
<td>6 - Company Veterinarian</td>
</tr>
<tr>
<td>7 - Private or Other Veterinarian</td>
</tr>
<tr>
<td>8 - Other-include combination of above responses if applicable (Specify:____________)</td>
</tr>
</tbody>
</table>
Section 2 – Breeding and Preweaning Animal Management

- Skip this section if there are no breeding animals at this site
- Will be several questions about Gestation and Farrowing phases at this site

**NOTE:** Items 2 through 6 ask about what is generally or currently done.

**NOTE:** For the purpose of this study, all-in/all-out management means that every single animal is removed from a room, building, or site, and the pig areas are then cleaned and disinfected before any new animals arrive. If a facility (room, building, or site) is never completely empty of swine, the management approach is referred to as continual flow.

2. How do most sows and gilts flow through the (column heading) phase? (Enter Code from List 2 below for each column).

<table>
<thead>
<tr>
<th>Gestation</th>
<th>Farrowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0202</td>
<td>0203</td>
</tr>
</tbody>
</table>

**LIST 2 - Flow Management**

1. Continual flow
2. All swine removed, but swine areas not cleaned and disinfected
3. All-in/all-out by room
4. All-in/all-out by building
5. All-in/all-out by site
Section 2 – Breeding and Preweaning Animal Management

• What type of facility is used for **most** animals? (pick from the list)
• How is manure from **most** animals collected and handled? (pick from the list)
• How was manure from **most** animals stored and treated? (pick from the list)
• Which type of housing is used for **most** animals in the facility?
  – (1. Individual stalls or crates, 2. Group housing such as in pens, 3. Other – please specify)
    • If Code 2, Group housing........ How were the animals fed?

<table>
<thead>
<tr>
<th>Item 6 = 2, CONTINUE for that phase; otherwise SKIP to Item 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. What percent of animals housed in groups in the (column heading) facility</td>
</tr>
<tr>
<td>a. Electronic Sow/Gilt Feeding? ......................................................... +</td>
</tr>
<tr>
<td>b. Group fed on floor? ................................................................. +</td>
</tr>
<tr>
<td>c. Individually fed in trough, but with group access to the trough? ................... +</td>
</tr>
<tr>
<td>d. Individually fed in free access stall? ................................................ +</td>
</tr>
<tr>
<td>e. Other feeding methods? (Specify: 5216 ..........................) +</td>
</tr>
<tr>
<td>(Specify: 5221 ..........................................................) +</td>
</tr>
<tr>
<td>Total (Should equal 100%) = 100% = 100%</td>
</tr>
</tbody>
</table>
Section 2 – Breeding and Preweaning Animal Management

- Several questions about breeding females brought into the breeding herd between Dec. 1, 2020 and May 31, 2021
  - How many head of breeding females (e.g., replacement gilts) were introduced into the breeding herd?
  - How many groups of breeding females were introduced in the breeding herd?
  - Were any put through isolation or quarantine when being introduced?
    - If so, for how long?
  - What type of disease testing was done on newly arriving females?
  - What type of acclimatization procedures were used for newly arriving breeding females?
Section 2 – Breeding and Preweaning Animal Management

NOTE: For the purposes of this study, a service is one or more matings in the same heat cycle or estrous period.

• Several questions about breeding practices on the site, farrowings, and pig survivability
  – Number of sows bred
  – Breeding methods used
  – How was semen obtained that was used for artificial insemination
  – Was any of the semen tested for disease
  – How many sows farrowed
  – How many total pigs were born
  – How many pigs were born alive
  – How many of the pigs have been or will be weaned (how many do they expect to survive)
  – Number of preweaning deaths occurred (how many pigs born alive died before weaning)
  – How were the dead pigs disposed of (methods are broken out by percent of the total)
  – Causes of pig deaths
  – Weaning age of pigs (in number of days)
  – Are piglets moved to a separate site at weaning
  – Approximate average number of litters per sow between Dec. 1, 2020 and May 31, 2021
Section 2 – Breeding and Preweaning Animal Management

NOTE: For the purpose of this study, parity is the total number of farrowings a gilt or sow has

• What was the approximate average parity of breeding females (gilts and sows) in the breeding herd? (average number of farrowings the females have had in their lifetime)
• How many breeding females died, were euthanized, or were culled?
• How were breeding females that died disposed of? (by percent)
• Why were breeding females culled? (by percent)
• What was the average parity (average total times farrowed per sow) of breeding females that were culled?
Section 3 – Nursery Aged Pig Management

- If this site did not raise weaned pigs, skip to Section 5
- If this site did not raise nursery aged pigs (weaning at approximately 60 pounds) skip to Section 4
- Did this site raise most of its nursery aged pigs at a nursery facility(ies) or a wean-to-finish facility(ies)?
Section 3 – Nursery Aged Pig Management

- How do **most** pigs flow through the nursery or wean-to-finish phase?
- Which type of facility is used for **most** nursery aged pigs?

NOTE: For this questionnaire in this section, answer for nursery aged pigs whether they are raised in a nursery or wean to finish facility(ies).

NOTE: Items 4 through 7 ask about what is generally or currently done.

NOTE: For the purposes of this study, all-in/all-out management means that every single animal is removed from a room, building, or site, and the pig areas are then cleaned and disinfected before any new animals arrive. If a facility (room, building, or site) is never completely empty of swine, the management approach is referred to as continual flow.

4. How do **most** nursery aged pigs flow through the nursery or wean-to-finish phase? (Enter Code from List 7 below)

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0304</td>
</tr>
</tbody>
</table>

   **LIST 7 - Flow Management**

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0304</td>
</tr>
</tbody>
</table>

   1. Continual flow
   2. All swine removed, but swine areas not cleaned and disinfected
   3. All-in/all-out by room
   4. All-in/all-out by building
   5. All-in/all-out by site

5. Which type of **facility** is used for the **most** nursery aged pigs? (Enter Code from List 8 below)

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0305</td>
</tr>
</tbody>
</table>

   **LIST 8 - Facility Type**

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0305</td>
</tr>
</tbody>
</table>

   1. Total confinement with mechanical ventilation
   2. Open building with no outside access
   3. Open building with outside access
   4. Other (Specify: )
Section 3 – Nursery Aged Pig Management

• How was manure from most nursery aged pigs collected and handled? (pick from the list)

• How was manure from most nursery aged pigs stored and treated? (pick from the list)
Section 3 – Nursery Aged Pig Management

• Now we will ask several questions about any recently weaned pigs that were at the site
  – How any entered the facility
  – Where did they originate from (by number of head or by percent)
  – How many different off-site sources did they come from
  – Were recently weaned pigs from different off-site sources commingled in the same facility(ies)
  – Ages of the pigs when they entered the nursery or wean-to-finish facility, left the nursery facility, and transitioned to the wean-to-finish facility to be fed and managed as grower/finisher aged pigs
Section 3 – Nursery Aged Pig Management

• More questions about any recently weaned pigs that were at the site
  – How many died
  – How many died due to different causes (by number of head or percent)
Section 4 – Grower/Finisher Aged Pig Management

• Many of the same questions asked about nursery aged pigs with a few differences
  – Three additional questions about manure handling
Section 5 – Biosecurity

• If this site raised weaned pigs, how were the pigs that died disposed of? Burial on this site, Incineration on this site, etc. (by percent)

• Are dead swine from other sites also disposed of at this location outside of this site?

• Over the last 3 months, approximately how many business visitors and non-business visitors came onto this site?

• Are these visitors allowed to enter into areas where swine are kept?
Section 5 – Biosecurity

• If visitors are allowed in the swine production areas, there are several questions about security measures taken
• Trucks can transfer disease, so we want to know how many trucks have come to the site over the last 3 months and what precautions are taken.

### Table 6: Number of Visits

<table>
<thead>
<tr>
<th>Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0527</td>
</tr>
<tr>
<td>0528</td>
</tr>
</tbody>
</table>

### Table 7: Requirements for Animal Transport Trucks

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Yes</th>
<th>No</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Inside of the trailer clean?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Inside of the trailer disinfected?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Outside of the trailer clean?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Outside of the trailer disinfected?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Trailer dried?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If Item 7e is NO or DK, SKIP to Item 9*  

### Table 8: Drying Method Required

<table>
<thead>
<tr>
<th>Method</th>
<th>Baking</th>
<th>Air Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTE:** For the purposes of this study, a Line of Separation is a line dividing the farm into a clean area and a dirty area that neither drivers nor farm staff cross over.

### Table 9: Line of Separation

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Section 5 – Biosecurity

• A few “Yes” or “No” type questions on rodent control and methods to keep wildlife out of or away from the buildings containing swine

• Distance to nearest site with any swine and number of sites within three miles with swine (regardless of who owns the swine)

  Asked because swine diseases can spread from herd to herd

• A couple questions about feral swine in the area and around the site

  Feral swine can transfer disease to domestic animals
Section 6 – Overall Farm Management

• A few basic questions on testing that was done in the past three years at the site, manure management, veterinary use, etc. (nothing you haven’t seen before)
Section 6 – Overall Farm Management

- A few basic questions about antibiotic use on the site
Section 7 – Conclusion

• Consent for Phase II may have already been given on the Site Selection Form, but the contact at each site also has the opportunity to consent or decline Phase II
  – As an enumerator, you can let the contact at the site know that the respondent gave consent for Phase II on the Site Selection Form
  – See the back page of the questionnaire for more info on the consent process. You can share this with the respondent.

• Ensure the contact information is correct for this site. If not, enter the correct information in Item 2, page 16.

• Complete the response code, ending time (in military time), and date of interview
Things To Watch Out For

• Number of sites with breeding swine and number of sites without breeding swine must add back to total sites

• If multiple sites, number of hogs on selected site cannot be more than total hogs on operation

• Sum of dispositions:
  – Parts MUST = the total
  – Percents must total 100
Data Protections

Data protected under CIPSEA

(Confidential Information and Statistical Efficiencies Act)

- Information collected for the NAHMS Small Swine Enterprise study is protected by law
- Information is used for statistical purposes only
- No identifying information will be published or shared, only aggregated summaries
- Identifying information is not linked with study response data
- Data collected under CIPSEA are protected from Freedom of Information Act (FOIA) requests
Conclusion

• A comprehensive look at swine management and animal health
• Get to know the specific includes/excludes
• Pay close attention to the skips
• Read the Interviewer’s Manual (IM) and keep it handy
• Practice Exercises
• Have a good survey!