Gestation Sow Housing: Producer Perspective

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Outline

• Industry Structure and Pig Terminology
• Farmer Position on Gestation Sow Housing
• Gestation Housing Options
• Research Efforts
• Education Resources
Industry Structure and Pig Terminology
1900s

- Pigs found on virtually every farm in the U.S.
- Pigs as “mortgage lifters”
- Diversified farms
- Pigs added value to the corn farmers raised
- Few facilities or capital expenses, but less productivity than we currently see
1930s through 1960s

- Number of pig farms began to decline and in a period of 30-plus years they fell from 3.6 million pig farms to 0.6 million pig farms.
NUMBER OF HOG OPERATIONS BY INVENTORY


People. Pigs. Planet.
1960s and 1970s

• Movement from the outdoors
• 1969 – Hog Farm Management
  – 3 articles
  – “We Treat Em’ Like Queens”
  – Confinement production
  – Tethers
  – Feed stalls with loafing area
  – Gestation stall – continuous use

Picture from TTU Lab of Animal Behavior, Physiology and Welfare web site
1980s and 1990s

- Farm Crisis (80s)
- Hog market crash (90s)
- Multi-site farm production
- Labor specialization
- Consumer demand
  - Fat is bad
  - Lean is good
  - Pork. The Other White Meat.
Today

- Over 68,000 pig farms that produce pork.
- Specialization
  - Breeds
  - Stages of development
  - Niche markets
  - 4-H and FFA
- Consumers benefit from diversity
- Adoption of technology and good production practices have improved safety and quality of pork products.
Since 1967 the number of U.S. hog farms has declined from 1,042,140 to 68,300.

Source: USDA-NASS
Average Inventory Per U.S. Hog Farm

Source: USDA-NASS (as per Ron Plain, University of Missouri)
Farms with inventory of 1 to 24 head make up 59.7% of the farms and have 0.4% of the hogs. Farms with inventory of 5000+ head make up 3.8% of the farms and have 60.2% of the hogs.

Source: 2007 U.S. Census of Agriculture
Who Owns the Pigs?

- Family ownership
  - Incorporating
- About half of U.S. pigs are raised under a production contract.
  - The “grower” provides the land, buildings, labor, and utilities
  - The “contractor” owns the animals and provides everything that goes in or on them.
Terminology

**Sex**

- Gilt – young female, no offspring
- Barrow – young, castrated male
- Sow – mature, reproducing female
- Boar – mature, reproducing male

Marketed as fresh pork products (chops, loins, etc)

Marketed as processed pork products (sausage)
Terminology

- Gestation – time while the female is pregnant
- Farrowing/lactation – giving birth and nursing the piglet
- Weaning – when a young pig is removed from the sow to go to the nursery
- Nursery – the time/place immediately after weaning
- Grow/finish – the time/place after the nursery phase until a pig goes to market
Genetic Nucleus

Farrow to Finish

Farrow to Nursery

Grow/Finish

Grow/Finish

Grow/Finish

Farrow to Wean

Nursery

Nursery

Grow/Finish

Grow/Finish

Packer/Processor

Packer/Processor

Packer/Processor

Packer/Processor

Wean/Finish

Wean/Finish

Wean/Finish

Wean/Finish
• Approximately 2.25 litters per year
• Pigs per litter averages 9-12+
• A pig reaches market weight at approximately 190 days and weighs approximately 270 pounds
Farmer Position on Gestation Sow Housing
Sow Housing Research Reviews

- 1997 – The Welfare of Intensively Kept Pigs
- 2001 – Barnett et al (Australia)
- 2004 – McGlone et al (Pork Checkoff)
- 2005 – Rhodes et al (AVMA)
- 2013 – McGlone
NPB Position on Sow Housing

The NPB builds its animal care and well-being programs on this foundation: What is best for the pig? The board also relies on the best scientific research available, and the best scientific research now available indicates there are several types of production systems that can be good for pigs. Those systems include open pens, gestation stalls and open pastures.

Regardless of the system, what really matters is the individual care given to each pig.

Through the Pork Checkoff, the NPB provides educational programs and materials that focus on how producers can best assure the well-being of their pigs. These programs offer methods that help producers take an objective look at each animal's well-being, independent of the size of operation or the specific type of housing. Producers are then able to decide for themselves the type of production system that is best for their animals, and for them given their resources and markets.
## US Industry Estimates – Gestation Housing

<table>
<thead>
<tr>
<th>Number of Sows</th>
<th>Firms Responding</th>
<th>Number of Sows Represented (1,000 head)</th>
<th>Percent in Open Pens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Current</td>
<td>In 2 Years</td>
</tr>
<tr>
<td>100,000 &amp; up</td>
<td>10</td>
<td>2,333</td>
<td>16.4</td>
</tr>
<tr>
<td>10,000-99,999</td>
<td>38</td>
<td>1,161</td>
<td>18.9</td>
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<tr>
<td>1,000-9,999</td>
<td>22</td>
<td>102</td>
<td>20.2</td>
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<tr>
<td>Survey Total</td>
<td>70</td>
<td>3,596</td>
<td>17.3</td>
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</tbody>
</table>

Plain, 2012

U.S. Breeding Herd = 5.92 million pigs
Individual Housing

People. Pigs. Planet.
Group Housing – 100s of Options!

- Feeding systems – ESF, floor, trickle, feeding stall
- Flooring – solid, slats, combinations
- Time of grouping – weaning, pre- or post-implantation
- Size of groups – small, medium, large
- Type of groups – static or dynamic
- How sows are grouped – parity, body condition
Free-Access Stalls

- Combination of individual and group
- Alley width
- Animal utilization
ESF

People. Pigs. Planet.
Trickle Feeding
People. Pigs. Planet.

Research Efforts
Sow Housing – Producer Resources

• $2.1 Million in research funding since 2002
  – Comparison studies – behavior, physiology, and performance
  – Space allowance
  – Gestation stall design
  – Animal preference testing
  – Reduction of aggression
    • Group sizes
    • Mixing/grouping strategies
    • Diet
  – Economic evaluation of sow housing conversion
• Optimization of housing systems
Education Resources

• Decision Tools
  – Provide information on the key decision topics producers must consider when choosing a housing system.
  – 9 topic areas – webinar and fact sheet (pork.org/sowhousing)
    • Feeding Design Choices
    • Forming Gilt and Sow Groups
    • Space Allowance and Group Size
    • Genetic Considerations
    • Nutritional Considerations
    • Production Flow and Management
    • New and Conversion Construction
    • Lameness
    • Stall Design

• Financial Worksheet
  – Compare cash flow and changes in cost per pig under different types of production systems.
  – Results can be used to discuss production costs with financial lenders and markets.
Education Resources

• How To Implement
  – Educational tool for daily caretakers covering basic animal care skills.
  – 6 kits covering 6 basic housing systems.
    • Gestation stalls
    • Free-access stalls
    • Electronic sow feeding
    • Drop feeding
    • Trickle feeding
    • Feeding stalls
  – Include guide, daily observation checklist, videos, and troubleshooting scenarios.
Summary

- Ethical obligation to protect and promote animal welfare
- We take concerns about the welfare of our animals seriously
- None of the methods used today to house pregnant sows are perfect
- We work with veterinarians, animal scientists, animal behaviorists and farmers to seek new alternatives and improve existing options
- The industry continues to invest in research to improve pig welfare
Questions

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