Thank you for participating in SowBridge 2011-12.

To start this presentation, advance one slide by pressing enter or the down or right arrow key.

Outline

- Pre-farrowing and post farrowing behavior
  - Understanding behavior to enhance system design
  - Meet the “freedom to express normal behavior”
- Options
- Space needs for these systems

Behavioral stages

- Isolation
- Nest building
- Farrowing
- Initial dam-piglet interaction
  - Teat seeking
  - Teat sampling
  - Nursing order
- Nest occupation
- Social integration
- Weaning

Farrowing Housing

<table>
<thead>
<tr>
<th>Stall</th>
<th>Loose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease crushing</td>
<td>Freedom of movement</td>
</tr>
<tr>
<td>Improve space utilization</td>
<td>Choose nest site</td>
</tr>
<tr>
<td>Supplemental heat</td>
<td>Perform nesting behavior</td>
</tr>
<tr>
<td>Improved hygiene</td>
<td>Establish more physical contact with piglets</td>
</tr>
</tbody>
</table>

Thanks to Christina Phillips for the use of the slides material
Turn around

Hinged stall

Open pens: The Werribee Pen

Communal pens

A-Line farrowing hut

English style and fender designs

Short wooden fender: length (3.96 ft) x width (3.96 ft) x height (0.99 ft)

Tall metal fender: length (5.28 ft) x width (back 8.91 ft front 2.31 ft) x height (back 2.97 ft front boards total 1 ft)
English style and fender designs

Wooden board: length (31 in) x width (2 inc) x height (4.8 inc)

PVC roller: length (26 inc) x width (4.8 inc) x height (4.8 inc)

Mortality comparisons in indoor systems

<table>
<thead>
<tr>
<th>System</th>
<th>Range (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn Around</td>
<td>8.7 – 15.4</td>
</tr>
<tr>
<td>Slopped</td>
<td>9.1 – 12.4</td>
</tr>
<tr>
<td>Loose</td>
<td>11.3 – 16.3</td>
</tr>
<tr>
<td>Group</td>
<td>12 - 26</td>
</tr>
</tbody>
</table>

Honeyman et al., 1998

Mortality comparisons in outdoor systems

<table>
<thead>
<tr>
<th>System</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quonset</td>
<td>12</td>
</tr>
<tr>
<td>A-frame (wood)</td>
<td>21</td>
</tr>
<tr>
<td>A-frame (plastic)</td>
<td>16</td>
</tr>
<tr>
<td>Pig saver</td>
<td>7</td>
</tr>
<tr>
<td>English style</td>
<td>7</td>
</tr>
</tbody>
</table>

Honeyman et al., 1998

Space needs of alternatives

<table>
<thead>
<tr>
<th>Alternative*</th>
<th>Size Feet</th>
<th>Increase in floor space needed*</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn-around</td>
<td>5 X 8.5</td>
<td>21%</td>
<td>McGlone &amp; Blecha, 1987</td>
</tr>
<tr>
<td>Family pen</td>
<td>5.5 X 7.5 +</td>
<td>30%</td>
<td>Arey &amp; Sancha, 1996</td>
</tr>
<tr>
<td>Werribee pen</td>
<td>7.6 X 11.4</td>
<td>147%</td>
<td>Cronin et al., 2000</td>
</tr>
<tr>
<td>Ellipsoid crate</td>
<td>5.6 X 6.5</td>
<td>9%</td>
<td>Lou &amp; Hurnik, 1994</td>
</tr>
<tr>
<td>Outdoor English-style hut</td>
<td>9 X 5.4</td>
<td>41%</td>
<td>Johnson et al., 2001</td>
</tr>
<tr>
<td>Average</td>
<td>---</td>
<td>40%</td>
<td>---</td>
</tr>
</tbody>
</table>

* Compared with a farrowing stall that provides 35 ft².

THANK YOU FOR YOUR ATTENTION

Alternative Gestation

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Spring 2006

Pens it is!

Original Pen Farm Pens   New Pen Farm Pens

Summer 2008

Why are the sows dying in pens?

"We don’t need to pull blood on those sows that aborted. All 8 of them got beat up and that’s why they aborted." –Unit Manager

Why are the gilts going into farrowing in much better condition at Sandy Ridge than at Village Central?
Are they really sick? Why do so many die?

They are sick!

Any sow that is reluctant to get up and eat is treated

• Most treatments occur in the first week
• At times, we’ve treated half or more of the sows placed in the pens
• At any time, if a sow doesn’t recover, she is placed into a stall

How can we better prepare sows to go into pens?

Body Condition

Lame Sows at Breeding
Success in Pens

- Dykhuis Farms
  - 26.4 p/s/y
  - Top 2 farms:
    - Stall farm: 27.3
    - Pen farm: 27.0

- We know a farm with pen gestation can achieve:
  - 13.7 total born
  - 91.4% farrowing rate
  - 5.5% sow death loss