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**2007:** TECSA Intern, 2007

**2008-2009:** PIC Production Trainee

**2009-2013:** Agroceres – PIC Sales and Technical Consultant

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Weaned Sow Management for High Performance

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What is Wean to Service Interval?

- WSI is the most variable component of LSY calculation.
  - Excellent farms: 4.5 to 5d.
  - Majority of the farms are 6.5 to 7d.

- WSI is part of Non Productive Days (NPDs).
  - Associated with increased costs/decreased efficiency.

- WSI is a factor in defining subsequent reproductive results.
Factors On WSI Length
Feeding During Previous Gestation

• Keep sows in good body condition.

• Consequences of over-conditioned sows:
  – Higher Cost of Production.
  – Impaired mammary development.
  – Reduced Feed Intake in lactation.
  – Suffer body weight losses in lactation.
  – Tend to have lower litter size in subsequent farrowing.
Feeding During Previous Gestation

- Breed gilts in the correct windows, >70% should be bred at 300-320 lb.

- Control body weight gain in gestation, P0s no more than 100 lbs.

- Put P0s all together for proper feed management and conditioning.

- Try to group bred sows in the snake by body condition.
Feeding During Previous Gestation

- Have a practical body condition evaluation in the field executed consistently – at 30, 60 and 90 days after breeding.
  - > 90% of sows in normal condition at week 4.
  - Consistency in the body condition evaluation.
Feeding During Previous Gestation

- Calibrate feeders: Weigh actual feed amount dropped on a monthly basis and align feed boxes accordingly.

Both Feed boxes are set to drop 5lbs.

Feed Box 1 is dropping 4.75 lbs
Feed Box 2 is dropping 3.75 lbs
Feed Intake in Lactation

• Sows voluntary FI in lactation is frequently inadequate to meet nutrient demands.

• P1s require nutrients for growth and milk production – intake is unable to meet the demands.

• Environmental temperatures affect feed intake, every 1 degree (°F) above upper critical temperature (70 °F) reduces ADF by 0.2 lb/day.
Feed Intake in Lactation

- Train the gilts pre-farrowing.
- Stand the sows up no less than twice a day, especially P1s.
- Easy access to fresh water.
- Room temperature:
  - Day of Birth: 74 degrees min.
  - From day 3+, 66-68 degrees.
Feed Intake in Lactation

- Daily adjustments in feeders; looking for fresh and full feed from farrow to wean.
- Daily removal of wet/spoiled feed.
- Follow up on individual feed intake.
  - Be able to identify outlier sows daily and treat them accordingly.
• The removal of the suckling stimulus at weaning allows the secretion of gonadotropin to allow rapid follicle growth.

• Boar exposure speeds up the follicle development and encourages earlier return to estrus.

• Sows with higher reproductive performance tend to come into heat from days 3 to 5.

• The target is to breed >92% of weaned sows by day 7.
Boar Exposure and Stimulation

• Group P1s in wean row to maximize boar exposure and stimulation.

• Beginning the day of weaning - Allow 0.5 – 1 min. of close nose to nose boar contact daily.
  − Provide manual stimulation.

• Mature boars >12 months of age (>6 months of age on Meishan crosses).
  − Replace the boars every 6 – 12 months.
  − Mate a cull sow once a week to keep their interest.
Do not house boars adjacent to wean sows – Negatively affects estrus expression and detection.

<table>
<thead>
<tr>
<th>Housing</th>
<th>Boar Permanently Beside Weaned Sows</th>
<th>Boar Expose Weaned in Crates</th>
<th>Boar Expose Weaned in Pens</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSI, days</td>
<td>5.1 + 0.1a</td>
<td>4.7 + 0.1b</td>
<td>4.7 + 0.1b</td>
</tr>
<tr>
<td>Estrus duration, hours</td>
<td>44.6 + 3.5a</td>
<td>59.9 + 4.7b</td>
<td>62.3 + 4.3b</td>
</tr>
</tbody>
</table>

Field experiences from many successful producers challenge the conventional wisdom that weaned sows do not eat much.

Modern/highly productive sows need maximized feed intake from farrowing to breeding – High impact on litter size.

Maximized FI in WSI contributes to:
- Higher metabolic balance.
- Shorter WSI (and reduces herd NPDs).
Feed Intake during WSI
Initial Proof of Concept

Feed Intake (Lb/d) From Weaning to Breeding
(10.4 Lb/d; 47 Lb Total)

Parity Distribution: P1+P2: 32%, P3-P6: 60%, +P7: 8%.
Weanings of August-September-October
N=438
Individual Crates, Nipples drinkers and dry feed.
Barn Temperatures: Max 80 F Min 72 F.
Gestation Feed: 3190 Kcal ME/Kgr.
Feed Intake during WSI  
Second Part - Analysis

<table>
<thead>
<tr>
<th></th>
<th>Trial</th>
<th>Control</th>
<th>Difference</th>
<th>Better/Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. WSI</td>
<td>4.4</td>
<td>5.3</td>
<td>0.9</td>
<td>Better</td>
</tr>
<tr>
<td>Bred by d 7</td>
<td>97.5%</td>
<td>92.8%</td>
<td>4.7%</td>
<td>Better</td>
</tr>
<tr>
<td>Sows</td>
<td>279</td>
<td>391</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Feed</td>
<td>41 Lb</td>
<td>30 Lb</td>
<td>11 Lb</td>
<td>Better</td>
</tr>
<tr>
<td>ADFI</td>
<td>9.3 Lb/d</td>
<td>5.7 Lb/d</td>
<td>3.6 Lb/d</td>
<td>Better</td>
</tr>
<tr>
<td>Litter Size</td>
<td>13.9</td>
<td>12.9</td>
<td>1.0</td>
<td>Better</td>
</tr>
</tbody>
</table>

Marginal Cost = $1.4 (11 lb x $0.13)  
Marginal Revenue = $34 (1.0 pig x 85% piglet conversion x $40 piglet price)  
Margin Over Feed Cost = $32.6 / Sow  
Cost : Benefit = 1:23
The biggest effect is realized in P2/P3.

Each sow needs to be treated as an individual.

The gold standard is to provide weaned sows with full feed, individual crates, and nipple drinkers.
Feed Intake during WSI
Concepts We Gathered

• Feed weaned sows no less than 2 times per day.
  – Identify sows that could/should eat more.
  – Identify sows that are outliers.

• Fresh feed: Wet/spoiled feed should be removed.

• Stimulation: Be sure to get weaned sows up every time they are fed.

• Group P1s together at weaning to maximize boar exposure and minimize aggressions from older/bossy sows.

• Do not place culled sows in the weaning row.
Take Aways

• Control the feed offered and body weight gain in gestation, specially on P1s.

• Full feed from farrowing to breeding.
  —Maximize Feed Intake, especially on P1s.

• Proper boar exposure management from the day of weaning with a high standard of implementation.

• Group P1s together in weaning row to maximize the boar exposure and feed intake.
Take Aways

- Understand the value of feed eaten after weaning.
  - Reduces WSI (NPD).
  - Potential to wean 0.8 pigs more per farrow in >70% of the weekly farrowings.
  - Margin Over Feed Cost: $32 per sow.