Sharpen the saw ... concepts, resources & issues

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**Market Forces**
US Dollar Index – June contract

**Market Forces**
GOLD – June contract

**Market Forces**
Corn – July contract
Market Forces
Wheat – July contract

Market Forces
Lean Hogs – June contract

Market Forces
Light Crude Oil – June contract
Market Forces
Ethanol Production

<table>
<thead>
<tr>
<th>Date</th>
<th>$/gal</th>
<th>B.E. $/bu corn</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 07</td>
<td>$1.52</td>
<td>$3.40</td>
<td>3.2</td>
</tr>
<tr>
<td>Nov 07</td>
<td>$1.74</td>
<td>$4.10</td>
<td>2.2</td>
</tr>
<tr>
<td>Dec 07</td>
<td>$1.94</td>
<td>$4.75</td>
<td>2.5</td>
</tr>
<tr>
<td>Jan 08</td>
<td>$2.19</td>
<td>$5.71</td>
<td>3.8</td>
</tr>
<tr>
<td>Apr 08</td>
<td>$2.46</td>
<td>$6.28</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Thumb-rule:
10 cents/gallon increase = 30 cents/bushel.

If ethanol is worth $3/gal today, the value of the corn going to an ethanol plant would be about $8/bushel.

Current Situation

- May 30, 2008 – Grimes & Plain
  - Weekly slaughter 1,828,000 (6.2% over 07')
  - Large Cold storage (23% over 07')
  - IA-Mn Apr. 1 $49.54/cwt
    May 20 $82.43/cwt (pork is a retail bargain)
  - Exports higher ... 18% of production
    1 out of every 5 pigs
  - USDA April #s --10 Million head, up 18%

- May 30, 2008 – Steve Meyer
  - Sow slaughter
    * 1.1% lower March inventory
    * Canada – 20% lower sow inventory

Average Ratio is ~1:3
Cutback Needed
• Ron Plain. "If corn stabilizes at $5/bushel, a 10% cut in the sow herd will probably be enough. If corn stabilizes at $6/bushel, a larger herd cutback will be needed," he says.
• Chris Hurt "We're gaining some of that export market and "I think we can back that 6 percent to 8 percent herd reduction down to 3 percent to 5%.”

How do we reduce the sow herd by some % - choices ...
• Do nothing and wait until enough of the industry goes out of business and the sows go to town. (ownership transfers don’t count) .. or..
• Industry reduces output ??%
.. or ..
• Rest of World removes sows ... export?

Dilemma
• How do you cut back in an industry were throughput has traditionally been the profit driver?

More with Less??
• Is it possible to find areas in your swine operation that you could reduce output with little impact on profit?
**Brainstorming the List**

- PRRS has been shown to cost $10/hd
  - Closing the herd for 6-9 months has been shown to stop PRRS shedding.
  - Risk of re-infection or bio-security slip

- Increase weaning age.
  - K-state study showed $.59/pig/extra day in faster growth, less loss – morbidity and death
  - Value in growth rate may or may not be important

**Wean-to-Finish ADG**

<table>
<thead>
<tr>
<th>Wean age, d</th>
<th>Trial 1</th>
<th>Trial 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1.28</td>
<td>1.15</td>
</tr>
<tr>
<td>15</td>
<td>1.36</td>
<td>1.40</td>
</tr>
<tr>
<td>18</td>
<td>1.40</td>
<td>1.51</td>
</tr>
<tr>
<td>21</td>
<td>1.49</td>
<td>1.54</td>
</tr>
<tr>
<td>15.5</td>
<td>1.54</td>
<td>1.59</td>
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</table>

**Wean-to-Finish Mortality**

<table>
<thead>
<tr>
<th>Wean age, d</th>
<th>Trial 1</th>
<th>Trial 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>9.4</td>
<td>7.9</td>
</tr>
<tr>
<td>15</td>
<td>7.9</td>
<td>6.8</td>
</tr>
<tr>
<td>18</td>
<td>6.8</td>
<td>3.6</td>
</tr>
<tr>
<td>21</td>
<td>3.6</td>
<td>3.9</td>
</tr>
<tr>
<td>15.5</td>
<td>3.9</td>
<td>3.4</td>
</tr>
<tr>
<td>18.5</td>
<td>3.4</td>
<td>2.5</td>
</tr>
<tr>
<td>21.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**Effect of lactation length and average daily feed intake on farrowing rate**

Reduce Non-productive days

- Gestation feed cost ... approx. $.50/day
- Timely identify and cull opens
- Preg check with Real time ultrasound
- Limit repeat services

Disadvantaged pigs

- Lightweight
  - Survival rate much less in pigs < 2.75 lb

Pig survival and birth weight

Economic of Gestation Feed
(assuming average feed cost is $220/ton)

<table>
<thead>
<tr>
<th>Daily Feed</th>
<th>Feed Cost $</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>day 120 days</td>
</tr>
<tr>
<td>4.0</td>
<td>$.44</td>
</tr>
<tr>
<td>4.2</td>
<td>$.46</td>
</tr>
<tr>
<td>4.4</td>
<td>$.48</td>
</tr>
<tr>
<td>4.6</td>
<td>$.51</td>
</tr>
<tr>
<td>4.8</td>
<td>$.53</td>
</tr>
<tr>
<td>5.0</td>
<td>$.55</td>
</tr>
<tr>
<td>5.2</td>
<td>$.57</td>
</tr>
</tbody>
</table>

- $6.60
- $13.20

Feed to Sow Condition Score

- Challenge you maternal genetics to see if they can perform at a lower condition score.

<table>
<thead>
<tr>
<th>Score</th>
<th>Condition</th>
<th>Description of ribs, backbone, &quot;H&quot; bones, and pelvic bones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emaciated</td>
<td>Obvious</td>
</tr>
<tr>
<td>2</td>
<td>Thin</td>
<td>Easily detected with pressure</td>
</tr>
<tr>
<td>3</td>
<td>Ideal</td>
<td>Barely felt with pressure</td>
</tr>
<tr>
<td>4</td>
<td>Fat</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Overly fat</td>
<td>None</td>
</tr>
</tbody>
</table>

1 - Calibrate drop boxes
2 - Examine Sow Condition
Finisher Options if Pig Flow Decreases

• Can we still make money in the finisher with less pigs?
  - Older weaning age - faster growing/less death
  - Fewer light birth weight pigs

Re-think Throughput Issue

• If I know I have 10% more room in the finishers - (2 extra weeks on a 20 week schedule)
  - 5000 pigs productive cost is $120/hd and gain 2 lbs per day VS 5000 pigs gaining 1.5 lbs per day costing $120/hd. What is the ADG worth?
  - How much do I need to reduce cost of gain to pay for the empty space?

Which is Better 1000 or 900?
Assumption - $120 cost/hd; $130 revenue/hd

• 1000 hd * $10 = $10,000 over variable cost
• 900 hd * $11.11 = $10,000 over variable
• At times of non-margin you can reduce cost by $1.11 per hd.
• That 0.93% cost reduction pays for 10% volume reduction at times of non-margin.

Which is Better 1000 or 900?
Assumption - $120 cost/hd; $150 revenue/hd

• 1000 hd * $30 = $30,000 over variable cost
• 900 hd * $33.33 = $30,000 over variable
• At times of LOW margin you can reduce cost by $3.33 per hd
• That 2.78% cost reduction pays for 10% volume reduction at times of low margin.
Which is Better 1000 or 900?

Assumption - $120 cost/hd; $180 revenue/hd

- 1000 hd * $60 = $60,000 over variable cost
- 900 hd * $66.67 = $60,000 over variable

At times of **AVERAGE margin** you can reduce cost by $6.67 per hd

- 5.6% cost reduction pays for 10% volume reduction at times of low margin.

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Example During Low Margin Times- lower cost of gain to capture $1.11 per pig?

- Averages for 15 to 50 lb pigs
- $600/ton feed 1.5 FE & 1# ADG (complex or missed budget)
  - OR
- $450/ton simple feed 1.7 FE & .8# ADG

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Example During Low Margin Times- lower cost of gain to capture $1.11 per pig?

- 35 lbs gain * 1.5 FE = 52.5 # feed @ $.30/lb = $15.75 feed cost per pig

- 35 lbs gain * 1.7 FE = 59.5 # feed @ $.225/lb = $13.39

- Feed cost **$2.36/ hd less**

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<table>
<thead>
<tr>
<th>Lysine Levels per Diet, %</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-140</td>
<td>1.25</td>
<td>1.10</td>
<td>.95</td>
<td>.80</td>
</tr>
<tr>
<td>141-190</td>
<td>1.10</td>
<td>.95</td>
<td>.80</td>
<td>.65</td>
</tr>
<tr>
<td>191-240</td>
<td>.95</td>
<td>.80</td>
<td>.65</td>
<td>.50</td>
</tr>
<tr>
<td>241-</td>
<td>.80</td>
<td>.65</td>
<td>.50</td>
<td>.35</td>
</tr>
</tbody>
</table>

Diet cost: 0.1235 0.12 0.1165 0.113
Line E: 3.38 ($41.74) 3.40 ($40.08) 3.41 ($39.73) 3.5 ($39.55)
Line B: 3.44 ($42.48) 3.33 ($39.96) 3.26 ($37.98) 3.4 ($38.42)
Line E and B

- Line E $40.08/cwt Vs $39.73 or $39.55
- $.35/cwt ($0.70/ hd) or $.53/cwt ($1.06/ hd)
- Line B -- $39.96/cwt gain Vs $37.98
- $1.98/cwt gain on 200 lb gain is $3.96/ hd
- Diet 2 Vs Diet 4 $3.08 per head

Sale Weight

- As the cost of gain closes in on the market price the optimum sale weight will shift lower.
  - Seasonal decreases in price also has an influence to lower the sale weight for more profit.

Planned Pig Flow

- Breeding
- Farrowing
- Weaning
- Market

“Begin with end in mind”

Planned Pig Flow … breeding sources

Gilt Pool

Seasonal Breeding Target = Weaned Sows - Sows Culled + Repeat Breeders + Gilts
Seasonal Impact

<table>
<thead>
<tr>
<th>Month</th>
<th>Farrowing Rate - month Farrowed</th>
<th>Farrowing Rate - month Bred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>74.00%</td>
<td>86.00%</td>
</tr>
<tr>
<td>Feb</td>
<td>81.00%</td>
<td>89.00%</td>
</tr>
<tr>
<td>Mar</td>
<td>85.00%</td>
<td>90.00%</td>
</tr>
<tr>
<td>Apr</td>
<td>89.00%</td>
<td>88.00%</td>
</tr>
<tr>
<td>May</td>
<td>86.00%</td>
<td>77.00%</td>
</tr>
<tr>
<td>Jun</td>
<td>89.00%</td>
<td>87.00%</td>
</tr>
<tr>
<td>Jul</td>
<td>90.00%</td>
<td>76.00%</td>
</tr>
<tr>
<td>Aug</td>
<td>88.00%</td>
<td>87.00%</td>
</tr>
<tr>
<td>Sep</td>
<td>87.00%</td>
<td>74.00%</td>
</tr>
<tr>
<td>Oct</td>
<td>81.00%</td>
<td>80.00%</td>
</tr>
<tr>
<td>Nov</td>
<td>77.00%</td>
<td>85.00%</td>
</tr>
<tr>
<td>Dec</td>
<td>76.00%</td>
<td>89.00%</td>
</tr>
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More Available with Pork Board Publication

- Practical Ideas to Address High Feed and Production Costs
- Look for the publication at www.porkboard.org

Thanks

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