Opportunities in Pork Production
Beginning Farmers Conference
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Iowa State University

What is the IPIC?

It is a unit of faculty, field specialists and staff at ISU that is designed to work across the Ag College departments of Animal Science, Ag Economics, Ag and Biosystems Engineering and the College of Vet Medicine in assisting technology transfer to the pork industry of Iowa

Mission of the IPIC

“To promote efficient pork production technologies in Iowa, maintain Iowa’s pork industry leadership and strengthen rural development efforts”

Think Iowa’s got pigs?

Denmark: 2.3 pigs/acre
Iowa: .56 pigs/acre

Pig density (per acre)
(Pig density (per sq. mile)
Total arable farmland (million acres)
Area (sq. miles)
Human population (million)
Harvest weight (lbs)
Annual slaughter (million)
Annual production (million)
Live exports (million)
Live imports (million)
Pig crop (million)
Pigs
Sows
Pig inventory (million)

We’ve more room for pigs
> Feed grains
> Manure nutrients
> Harvest capacity
> Pig knowledge

Iowa Assets in the Pork Industry

• Tradition of a successful swine industry
• Abundant, high quality grain production
• Farmers who need valuable “nutrient resources”
• Packing industry
• Iowa State University and IPIC
• IPPA and NPPC
• Low cost pork production capability
Iowa Pork Production

- Currently farrow ~ 70% of pigs fed in state
  - Import >8 million/yr (50% from Canada)
- Production shifting around the country (again)
  - Two plants recently announced closures (MS & Quebec)
  - Smithfield, Maple Leaf & others announced 10 yr phase in to group gestation
  - North Carolina won’t see growth
- More production will move to Iowa
  - Must be economically, socially and environmentally sustainable

Swine finishing model

- 2400 pigs, 45 – 270 lb
  - 2.4 turns = 5760 pigs/year (140 days/group)
  - Consume 1900 ton feed/yr
  - Corn from ~288 acres; soybeans from ~192
- Manure value
  - 19 lb N, 12 lb P₂O₅, 10 lb K₂O / space /yr
  - $26.88/ton (N), $24.86/ton (P), $16.14/ton (K)
  - Meets nutrient needs of 241ac corn /yr (170 #N)

10 pig spaces will supply 170 lbs N to fertilize 1 acre of corn

Profit in Pork Production?

Annual profits in the pork industry (per hd sold)

| Year  | Farrow-finisher | Farrow-Feeder | Feeder-Finish | Feed cost
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<tr>
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</thead>
<tbody>
<tr>
<td>1996</td>
<td>$6.18</td>
<td>($5.03)</td>
<td>$8.44</td>
<td>$8.36</td>
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<tr>
<td>2001</td>
<td>$13.67</td>
<td>$10.65</td>
<td>($2.33)</td>
<td>$3.57</td>
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<td>2006</td>
<td>$16.07</td>
<td>$21.10</td>
<td>($10.92)</td>
<td>$4.44</td>
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<tr>
<td>1998</td>
<td>Lowest $26.88</td>
<td>(Max $16.14)</td>
<td>(Max $27.96)</td>
<td>$5.26</td>
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<td>2004</td>
<td>Highest $25.57</td>
<td>$24.86</td>
<td>$14.81</td>
<td>$7.68</td>
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<td>1996-2005</td>
<td>54.2%</td>
<td>66.7%</td>
<td>33.3%</td>
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What are the Opportunities?

- Commodity production
- Niche based production
- Farrowing
- Farrow to finish
- Finishing
- Wean to finish
- Contract grower
- Allied business

Farrowing-Facts

- Shortage of weaned pigs in Iowa
  - 17.7% of US breeding herd, 1.08 mil (Dec '06)
  - 28.8% of US market hogs, 16.12 mil (Dec '06)
- >8 million feeder pigs imported
- Requires highly skilled management
- An economic generator
Farrowing-
Keys to Financial Success

- Top performance
  - reproductive efficiency (>25 p/s/y)
- Top health
  - closed herd and biosecurity
- Top market
  - price and assurance (futures based)
- Labor efficiency
  - mechanize and train

Finishing-
Facts

- Capitalizes on feed availability
- Capitalizes on slaughter capacity
- Works well for crop farmer of part-time farmer
- Flexibility in risk and ownership structure
  - purchase
  - custom grower (contract production)
  - numerous arrangements available

Finishing-
Keys to Financial Success

- Top health
  - require stable source from a known sow herd
- Manure nutrient
  - capture valuable nutrient for own crops
- Diversify
  - own the crops and utilize available time
- Top market
  - use risk protection tools
- Low cost ration balancing
  - DDGS and alternative feedstuffs

Attribute-based ‘Niche Markets’
Facts

- Based on:
  - production system (pasture reared)
  - eating quality (Berkshire, Duroc)
  - health perceptions (no subtherapeutics)
  - diet (organic)
  - a story (family farm)
- Demand in this area grows as the affluence of the consumer grows

Niche Markets-
Keys to Financial Success

- Have a Market
  - Location, quantity, products
- Know you market
  - Stability, culture
- Know your costs
  - Production (feed, labor)
  - Marketing (transportation, morbidity)

Niche Markets-
Keys to Financial Success

Production Issues:
- Mating system
  - know breeding window; batch farrow
- Pig flow
  - wean, move, market in batches (all-in/all-out)
- Health
  - know disease presence; practice biosecurity
- Genetics
  - obtain ‘good breeders’; structure, growth, meat quality
- Substandards
  - Reduce ‘fallout’ or substandard/cull pigs
Contract Finishing -

The Facts

• Numerous source options available
  – Sow farm co-ops
  – Local independent producers
  – Grain co-ops
  – Integrators
• Wean-to-finish, nursery, or finish
  – Tunnel vent or natural vent
• Manure is of great value ($2.50/hd after application cost?)

“What does the cashflow look like”

• #1) w/ no manure valued
• #2) w/ manure valued

Contract Finishing -

Cashflow example

• 2400 hd feeder to finish on ~2 acres
• $220/space construction cost
• 7.5% interest; $20,000 down
• Utilities:$1.50/hd ($8640/yr)
• Tax & Ins.: $7560/yr
• Own labor
• Paid $38/space ($91,200/yr)

Contract Finishing -

Cashflow example

Manure value

• 876,000 gal/yr (1 gal/space/day)
• Nutrient yld/space/yr: 19#N, 13#P, 10#K
  N: 19# *2400 = 44,688 * $.26 = $11,619
  P: 12# *2400 = 28,800 * $.27 = $7,776
  K: 10# *2400 = 24,000 * $.22 = $5,280
  Annual manure credit = $24,675
  ($16,791 after application cost, $.01/gal)

N based plan: 262 acres (170#/ac); 524 in corn-soy rotation

Contract Finishing -

Cashflow example

Manure value (cont.)

• Nutrient analysis (concentration) will vary from
  barn to barn, system to system
  – Feed, entry/exit wts, feeder/water management, other
• Value will vary depending on fertilizer values
• Transportation >2-3 miles decreases value
• Must inject
• MMP’s are a good thing
• You need to capitalize with your own ground
Contract finishing - Considerations

- Know your contractor/supplier of pigs
  - Financial history
  - Herd health history
  - Trust
  - Employee retention/job satisfaction
  - Accessibility of regional fieldman & vet service
  - Pig flow & space allotment
  - Other: genetics, feed, MMP assistance, lending assistance, long term plans

- Manure Value

Contract finishing - Considerations

- Understand your contract
- Read through it
  - whether written or verbal
- Length of contract & terms
- Payment terms
- Repair & maintenance
Closing Thoughts-
The Future Pork Industry

- More swine finishing in Iowa
- No gestation stalls
- Increased public scrutiny
- Cut costs, cut costs, cut costs
- People

You are a great asset!

Sustainable pork production