Iowa’s Comparative Advantage in Pork Production

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Iowa Pork Industry Center

- At Iowa State University we have > 50 PhD/DVM scientists that work with pigs
- Colleges of Agriculture and Vet Medicine
- IPIC is responsible for the technology transfer from ISU to clients
- Work across Iowa, across the USA, and major international efforts

State of Iowa

Fertile land
- No. 1 in corn, soybeans, hogs, eggs
Low population
- < 2,800,000
Agricultural history
Desire for sustainability

Starting Points

- Iowa has extremely fertile land that is used primarily to grow corn/soybeans
- These crops need fertilizer and markets
- These two points will not change soon
- Higher oil prices have impacted Iowa’s industries
  - Fertilizer costs, ethanol profitability, transportation costs

Starting Points

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- Iowa is the number one state in pork production
- There is competition for pork production
- Iowa has advantages for profitable pork production

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- There is competition for pork production
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- What is the impact of high energy prices on this?
Pork Production in USA

Iowa's Advantages for Pork Production

- Primary cost of pig production is feed cost (~70%)
- Primary feed ingredients are corn/sbm
- Costs of feed is purchase plus shipping
- Corn/SBM cost less in Iowa
- Much lower shipping costs in Iowa

Result = cost less to raise pigs in Iowa

Iowa's Advantages for Pork Production

- Income from pork production comes from selling market hogs, plus other products of pork production
- Iowa has the most plants to market our hogs

Result, income advantage in marketing the pigs

Iowa's Advantages for Pork Production

- Other product advantage = Nutrient value of manure
- Must have a crop industry to capitalize on value of manure as a nutrient
- Iowa is number one state for corn and soybean production
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- Other product advantage = Nutrient value of manure
- Must have a crop industry to capitalize on value of manure as a nutrient
- Iowa is number one state for corn and soybean production
- Result is income advantage in marketing nutrients in manure

How Do Higher Energy Prices Affect Iowa’s Pork Advantages?
- As energy price increases, oil based fertilizer prices increase, increasing the value of nutrients in manure
- As energy price increases, shipping costs increase

Bottom Line: Iowa’s Advantage Improves with Higher Energy Prices
- The value of manure recycled as a crop nutrient increases
- Grain deficient regions cannot effectively utilize manure and it is often a costly disposal problem
- The cost to transport corn from the Midwest to deficient regions increases

Food in America
- Plentiful
- Cheap
- High quality
- Variety
- A good model

Sustainability of Food Systems
- Sustainable
  - Ability to provide people high quality food in an affordable manner
- Challenges
  - Population is growing worldwide
  - Affluence is growing worldwide
- Focus → production of high quality pork using available resources in the most cost efficient manner

“at the center of sustainable agriculture”
Important Issues in Iowa

- There is a need to grow the rural economies of Iowa
- Growth needs to be sustainable
  - Environmental
  - Social
  - Economic

Growth needs to be diverse
- Agriculture, manufacturing, construction, transportation, public services (financial, education, utilities, etc.), retail marketing, tourism, technology, energy, etc.
- Key = PEOPLE
- For people to stay in rural areas there needs to be jobs and quality of life

The need to keep more of our young people in rural Iowa is a priority
- Primary usage for rural Iowa land will be agronomic
  - Crop production (corn, soybean, others)
  - An integrated crop/livestock industry has great potential to grow Iowa's rural economies in a sustainable way!

Sustainability Factors
- Economic sustainability requires adequate size, good management and technology utilization
- Key factor for both environmental and social sustainability appears to be the size of the operation and location
- Therefore, growth in the commodity side of pork production must be done via “Low Density” model

“Low Density”
- Match the nutrient needs of the land with the manure production of the farm
- Consider the impact of the farm on the rural infrastructure
- Consider the profit potential to create rural jobs
- Site the farm using objective assessments of environmental risk

2400 Head Wean-Finisher on 640 Acres of Cropland
2400 Head Finisher Example

- One 2400 finisher on one section of land with an approved MMP
- Nutrient needs of the land match the manure production of the pigs
- Reduce the use of rural roads for manure transport
- Locate only on sites that are objectively identified as environmentally acceptable

Economic Impact Includes

- Job creation to manage the farm
  - New beginning farmers
- Feed utilization of the pigs
  - Local grains, local processing
- Veterinary care (local practitioners)
- Utilities (regional suppliers)
- Insurance (local businesses)
- Taxes (local and state)

Summary

- Iowa is a state blessed with fertile land to grow abundant, high quality crops
- Pork production is essential to maintain profitable crop industries in Iowa
- Energy prices have risen dramatically, and will continue
- Iowa’s advantage for pork production will continue

Thank You For Your Attention