The Costs And Revenues Associated With Conventional And Organic Cow/Calf Operations

Shane Ruff
Looking Ahead

- Certified organic beef
- Size of market
- How to get certification
- Other studies
- Methods and results
- Things to consider
- Other thoughts
- Questions
Certified Organic Beef

- There is a long list of strict guidelines
- Producer is subject to annual audits from the USDA
- Producer must provide documentation to prove beef is raised organically
Certified Organic

- Cattle must be raised organic from at least the last third of gestation
- Cattle with calves must be raised organically until calves are weaned
- If a cow with a suckling calf is given antibiotics, the calf is no longer organic
Certified Organic

- Cattle have to be raised by a certified organic producer
- Must be processed by a certified organic processor
- Antibiotics and growth hormones are not allowed for organic certification
Certified Organic

- Producers are not allowed to withhold treatment of cattle
- If antibiotics are used cattle are no longer certified organic
- Cannot be fed animal by-products
- Genetic engineering, ionizing radiation, and sewage sludge prohibited
Certified Organic

- Preventative management practices are allowed such as vaccines
Certified Organic

- Cattle must be fed 100% organic feed
- Vitamin and mineral supplements must be approved for organic cattle
- Organic crops follow their own set of guidelines for organic certification
- Must have access to pasture and the outdoors during lifetime
Certified Organic

- Can be confined temporarily for:
  - Health Reasons
  - Safety
  - Animals stage of Production
  - Inclement weather
  - To Protect water/soil quality
If a beef product has a USDA Certified Organic seal on it, the product is at least 95% organic.
Certified Organic

- All of the organic guidelines must be met
- Certified organic producer found to be in violation of these guidelines, can have certification stripped
Natural/Organic Beef

- Share of total beef (dollar) 2.6%
- Share of total beef (pound) 1.7%
- Dollar sales of natural/organic beef increased by 8.4% over one year
- Average Price
  - Conventional $3.67/pound
  - Natural/Organic $5.56/pound
Steps For Certification

- Step one
  - Select USDA certification agent
  - Consider marketing needs
  - Agents specialize in different certification
Steps For Certification

- Step two
  - Submit application and organic systems plan
  - Application from agent
  - Systems plan lists production criteria
Steps For Certification

- Step three
  - Review of documents by certified agent
  - Determines if producer is fit for organic production
Steps For Certification

- Step four
  - Inspection of operation
  - Occurs before certification
    - Annually after
Steps For Certification

- Step five
  - Review of inspection
- Step Six
  - Organic certification
USDA National Organic Program Website

- USDA National Organic Program lists agents that are certified
- Also lists all producers state-by-state certified organic
- Also lists producers who have lost certification
Other Studies

- University of California Cooperative Extension
- 2005 organic operation study
- Said to be the first study of its kind
- 50 head of cattle
- Found to be profitable for producer
- Finished cattle in the feedlot
Other Studies

- Iowa State University study
- 2004 study
- Compared average daily gain of organic cattle versus conventional cattle
- No economic data included
- Finished cattle in feedlot
Methods and Results

- Two operations
  - Conventional
  - Organic
- 100 cows
- Calves sold at weaning
- 2008 prices
- Several scenarios used for organic
- Organic Prices
  - 20–30% above conventional
Methods and Results

- Conventional Operation
  - 5% death loss
  - 5% replacement heifer ratio
- Steer prices
  - $111.00/cwt
- Heifer prices
  - $105.00/cwt
- 600 pounds for both
Methods and Results

- Organic Scenario One
  - 10% death loss
  - 5% Replacement heifer ratio
  - 10% Non-organic

- Steer Prices
  - 20% above conventional
    - $133.20/cwt
  - 30% above conventional
    - $144.30/cwt
Methods and Results

- **Heifer Prices**
  - 20% above conventional
    - $126.00/cwt
  - 30% above conventional
    - $136.50/cwt

- **Non-organic**
  - 5 steers and 5 heifers
    - Conventional prices
Methods and Results

- Organic Scenario 2
  - 20% Death Loss
  - 5% replacement heifer ratio
- Steer prices
  - $133.20/cwt
  - $144.30/cwt
- Heifer prices
  - $126.00/cwt
  - $136.50/cwt
- No non–organic
Methods and Results

- **Organic feed costs**
  - Organic alfalfa sells for 20% above conventional
  - All organic feed costs 20% added
  - Assume only alfalfa used

- **Vet costs**
  - Both scenarios divide conventional costs in half
  - Assume this is vaccination costs
  - Scenario one 10% added
    - 10% non-organic antibiotic cost

- **Bedding**
  - Added 20% to cost
Methods and Results

- **Marketing costs**
  - Organic twice as much as conventional

- **Culled cows**
  - 5 culled cows for every operation
  - Sold at pound price

- **Organic certification costs**
  - $1000 a year
  - Taken from University of California study
Methods and Results

- Conventional operation (5% death/replace)
  - 45 Steers
  - 45 Heifers

- Organic Operations (10% Death, 10% Non–Organic)
  - 35 Steers Organic
  - 40 Heifers Organic
  - 5 Steers Non–organic
  - 5 Heifers Non–organic

- Organic Operations (20% Death)
  - 35 Steers
  - 40 Heifers
## Methods and Results

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<thead>
<tr>
<th>Category</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Purchased</td>
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<tr>
<td>Homegrown</td>
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<tr>
<td>Grazed Feed</td>
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<td>Marketing Costs</td>
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<tr>
<td>Fuel, etc</td>
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<tr>
<td>Repairs</td>
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<tr>
<td>Vet/Medicine</td>
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<td>Bedding</td>
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<tr>
<td>Hired Labor</td>
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<td>Opp. Cost Land</td>
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<td>Taxes/Insurance</td>
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<td>Gen. Farm OH</td>
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<td>Custom Services</td>
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<tr>
<td>Capital Recovery Machinery</td>
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<tr>
<td><strong>TOTAL COSTS</strong></td>
<td><strong>618.83</strong></td>
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## Methods and Results

<table>
<thead>
<tr>
<th></th>
<th>Conventional</th>
<th>Per Cow</th>
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<tbody>
<tr>
<td>Total Cost</td>
<td></td>
<td>618.83</td>
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<tr>
<td>Total Profit</td>
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<td>610.7</td>
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<td>Gain/loss</td>
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<td>-8.13</td>
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<table>
<thead>
<tr>
<th>Organic Scenario One</th>
<th>Per cow</th>
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<tbody>
<tr>
<td>Total Cost 20%</td>
<td>688.17</td>
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<tr>
<td>Total Profit 20%</td>
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<td>Gain/loss</td>
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<td>Total Cost 30%</td>
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<td>Total Profit 30%</td>
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<td>Gain/loss</td>
<td>34.76</td>
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<table>
<thead>
<tr>
<th>Organic Scenario Two</th>
<th>Per cow</th>
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<tbody>
<tr>
<td>Total Cost 20%</td>
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<td>Total Cost 30%</td>
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<td>Total Profit 30%</td>
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<tr>
<td>Gain/loss</td>
<td>-18.7</td>
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Things to Consider

- Different Types of breeds
  - Each breed has own unique set of characteristics
  - A producer must know the characteristics of their breed

- Transition Costs
  - Transition costs were not factored in
  - Assumed transition already taken place

- Calves sold at weaning
  - Producer must find someone willing to finish calves on pasture
Other Thoughts

- Cattle can not be confined
  - No feedlot finishing
- USDA working with ranchers
  - Ranchers want to put cattle in feedlot
  - New deal would allow cattle to be put in feedlot for finishing period
    - Last four months of cattle’s lives
  - Feedlot is major part of finishing cattle
Other Thoughts

- Three new labeling options
  - Organic–Grain Finished
  - Organic–Grain/Pasture Finished
  - Organic–100% Grass Fed
- Provides alternative to finishing cattle
- Provides marketing alternatives
Other Thoughts

- Organic corn prices
  - 2010 Purdue Agricultural Economics Report
  - Organic prices 81% to 238% above conventional
  - $7.47/bu to $12.45/bu

- Would not be economically feasible to finish cattle on organic corn

- Producers would need to find alternative to corn
Other Thoughts

- Marketing is a major part of organic beef production
- Producers need to locate processors and/or other producers willing to finish organic cattle and process organic cattle
- Marketing research will need to be done before transitioning
- In theory price received could range from conventional price to anything higher
- Depends on how cattle are marketed
Other Thoughts

- 95% organic
  - What classifies as 95% organic?

- Organic documentation
  - How does USDA know it is accurate?

- Economic downturns
  - People want organic food when economy is good
  - Bad economy consumers are less willing to pay extra for organic food
Other Thoughts

- Only found one economic study on organic cattle
- University of California study in 2005
- This is still a young area of research
- There is still a lot of research to be done in this area
Works Cited


Your Thoughts

- Questions?