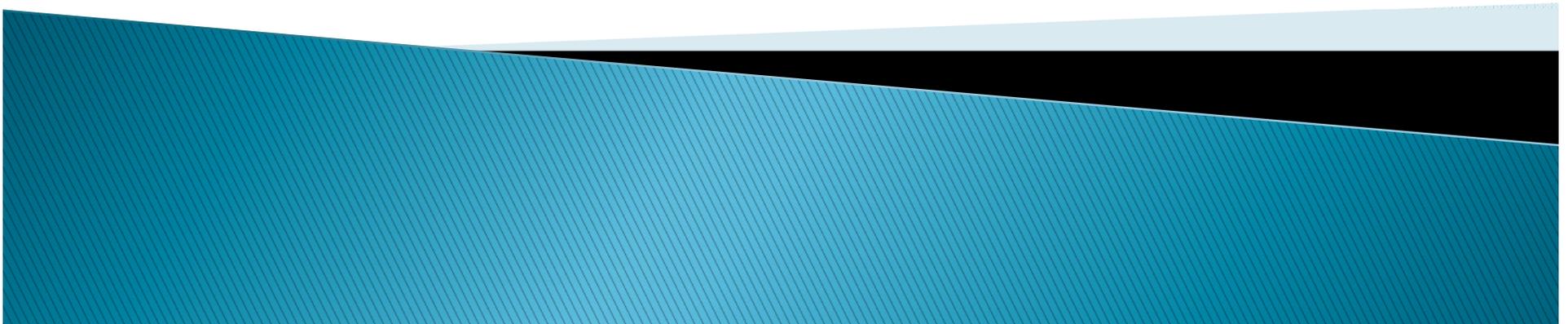


The Costs And Revenues Associated With Conventional And Organic Cow/Calf Operations

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



Certified Organic

- ▶ 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
 - \$1111.00/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

FEED	
Purchased	59.57
Homegrown	157.73
Grazed Feed	79.48
Marketing Costs	5.3
Fuel,etc	30.48
Repairs	18.57
Vet/Medicine	13.37
Bedding	0.44
Hired Labor	27.84
Opp. Cost Land	0.23
Taxes/Insurance	22.17
Gen. Farm OH	31.29
Custom Services	5.76
Capital Recovery Machinery	166.6
TOTAL COSTS	618.83

Methods and Results

Conventional	Per Cow
Total Cost	618.83
Total Profit	610.7
Gain/loss	-8.13

Organic Scenario One	Per cow
Total Cost 20%	688.17
Total Profit 20%	674.42
Gain/loss	-13.75
Total Cost 30%	688.17
Total Profit 30%	722.93
Gain/loss	34.76

Organic Scenario Two	Per cow
Total Cost 20%	676.83
Total Profit 20%	609.62
Gain/loss	-67.21
Total Cost 30%	676.83
Total Profit 30%	658.13
Gain/loss	-18.7

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

- ▶ Alexander, Corrine, and Samuel Clark. "The Profitability of Transitioning to Organic Grain Crops in Indiana." *Purdue University*. agecon.purdue.edu, Feb. 2010. Web. 28 Feb. 2011. <<http://www.agecon.purdue.edu/extension/pubs/paer/2010/february/alexander.asp>>
- ▶ Baier, Ann. "Organic Certification Process." *National Sustainable Agriculture Information Service*. attra.ncat.org, 2005. Web. 28 Feb. 2011. <http://attra.ncat.org/attra-pub/PDF/organic_certification.pdf>
- ▶ Beef Checkoff. "Fresh Data Shows Trend in Natural/Organic Beef Category." *Beef*. beefretail.org, 2011. Web. 28 Feb. 2011. <<http://www.beefretail.org/NaturalOrganicCategory.aspx>>
- ▶ Boland, Micheal, Elizabeth Boyle, and Christy Lusk. "Economic Issues with Natural and Organic Beef." *Kansas State University*. ksu.edu, Dec. 1999. Web. 28 Feb. 2011. <<http://www.ksre.ksu.edu/library/agec2/mf2432.pdf>>
- ▶ Compiled by Staff. "New Organic Pasture Rule May Not Apply to Beef Cattle." *Farm Progress*. kansasfarmer.com, April 2010. Web. 28 Feb. 2011. <<http://www.kansasfarmer.com/story.aspx/new/organic/pasture/rule/may/not/apply/to/beef/cattle/37381>>
- ▶ Compiled by Staff. "NCAT's Organic Livestock Workbook A Guide to Sustainable and Allowed Practices." *National Sustainable Agriculture Information Service*. attra.ncat.org, 2004. Web. 28 Feb. 2011. <<http://attra.ncat.org/attra-pub/PDF/livestockworkbook.pdf>>
- ▶ Harper, John M., Karen M. Klonsky, and Pete Livingston. "Sample Costs for an Organic Cow-Calf Operation." *University of California*. ucdavis.edu, 2005. Web. 28 Feb. 2011. <<http://coststudies.ucdavis.edu/files/organicbeefnc05.pdf>>
- ▶ High Plains. "Colorado Feeder Cattle Sales." *High Plains/Midwest Ag Journal*. hpj.com, 2 June 2008. Web. 28 Feb. 2011. <<http://www.hpj.com/archives/2008/jun08/jun2/Coloradofeederattlesales.cfm>>
- ▶ Honeyman, Mark, Russ Bredahl, and Dennis Maxwell. "Organic Beef Cattle Grazing Demonstration." *Iowa State University*. iastate.edu, 2004. Web. 28 Feb. 2011. <<http://www.ag.iastate.edu/farms/05reports/arm/OrganicBeefCattle.pdf>>
- ▶ Long, Rachael F., et al. "Organic Alfalfa Hay." *University of California*. ucdavis.edu, 2007. Web. 28 Feb. 2011. <<http://coststudies.ucdavis.edu/files/alfalfaorg2007.pdf>>
- ▶ NOP. "National Organic Program." *USDA*. ams.usda.gov, 2011. Web. 28 Feb. 2011. <<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateN&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPAccreditationandCertification&description=Accreditation%20and%20Certification&acct=nopgeninfo>>
- ▶ Smith, Margaret, and John Lawrence. "Organic, Natural and Grass-Fed Beef; Profitability and Constraints to Production in the Midwestern United States." *Iowa State University*. iastate.edu, 2008. Web. 28 Feb. 2011. <<http://www.leopold.iastate.edu/research/grants/2008/M2005-30.pdf>>
- ▶ "Transitioning to Organic Beef Production." *Purdue University*. purdue.edu, July 2007. Web. 28 Feb. 2011. <http://www.hort.purdue.edu/tristate_organic/org_mkt_cert_2007/transtobeef%20Behar.pdf>
- ▶ Troxel, Tom R. "Natural and Organic Beef." *University of Arkansas*. uaex.edu, Web. 28 Feb. 2011. <http://www.uaex.edu/Other_Areas/publications/PDF/FSA-3103.pdf>



Your Thoughts

- ▶ Questions?

