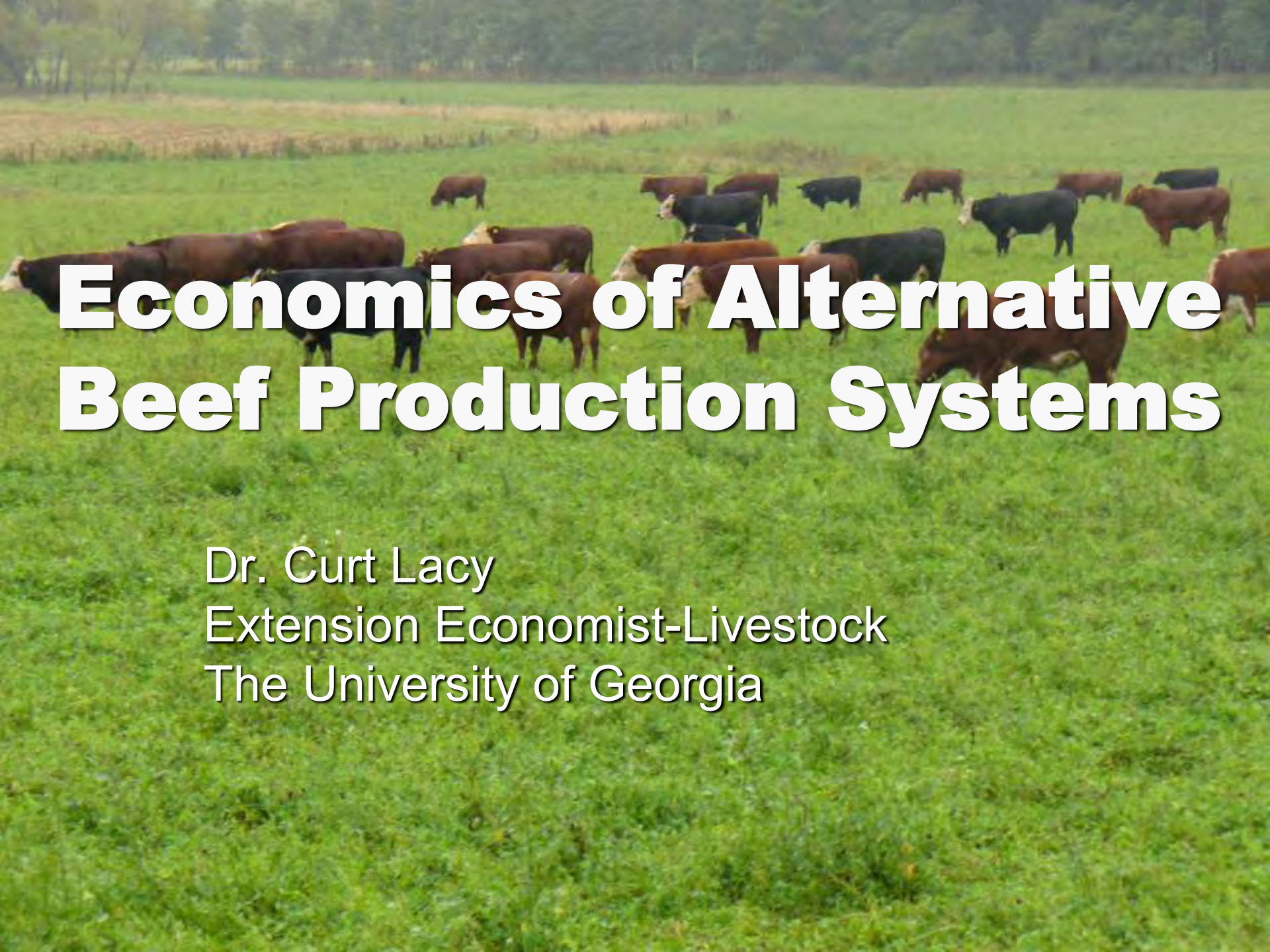

Economics of Alternative Beef Production Systems

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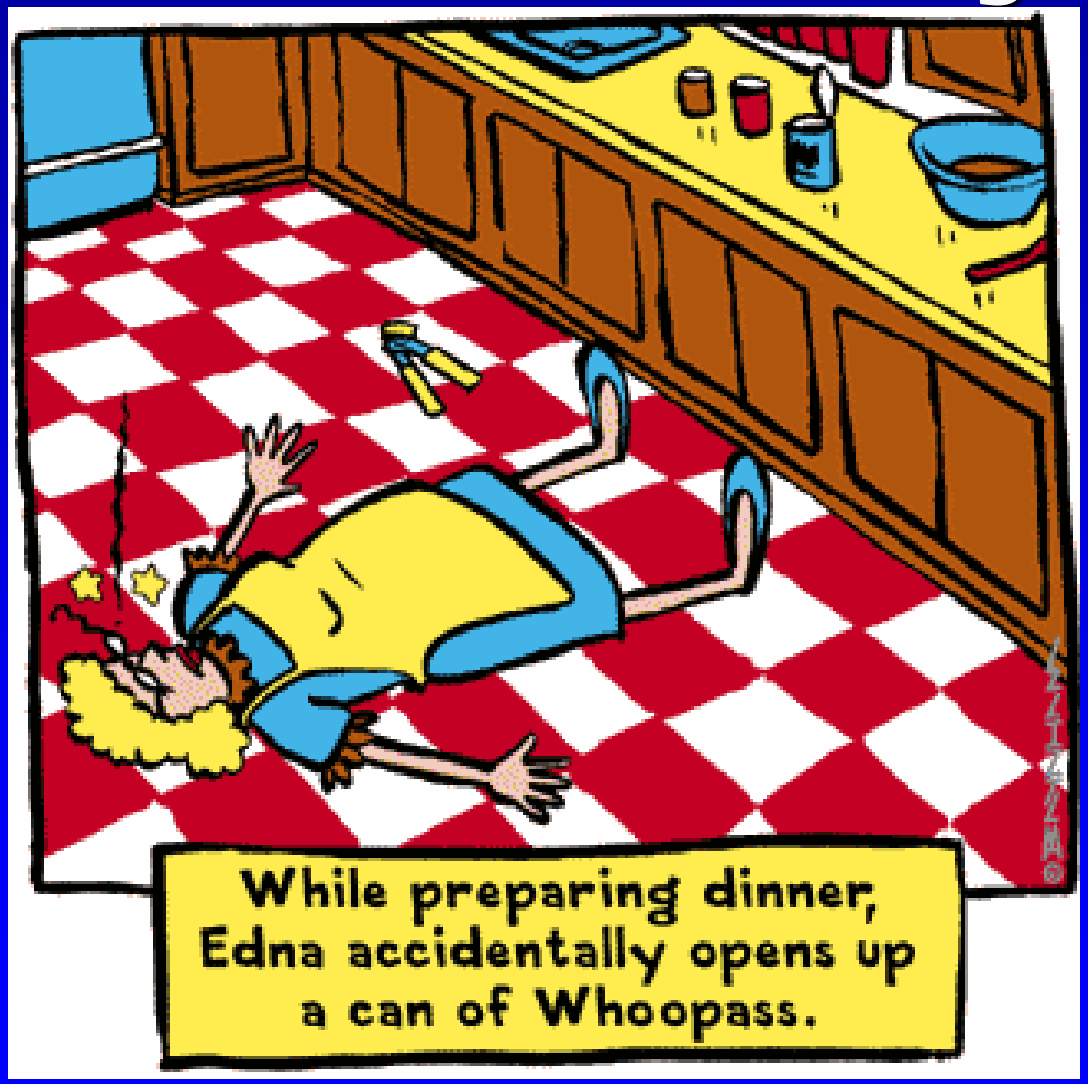
Current Status of the Beef Cattle Industry



Alternative Production Systems

- Organic
- Natural
- Grass-fed
- Local

Why consider alternative production systems?

- Changing consumer wants/demands.
- Higher prices?
- Current input market conditions warrant consider examining alternatives.
- Portfolio diversification.
- Long-term “alternative” may become conventional.

Why NOT consider alternative production systems?

- Consumer fads come and go.
- There is a reason more people aren't doing this.
- The input market could change considerably.
- Lack of technical information.
- Keeping records is not your long-suit.
- You are successfully producing and marketing conventional beef even in today's business climate.

Major considerations

1. Do you have a market?
2. Do you have a market?
3. Can you market in a timely manner?
4. Are there additional costs?
5. Are there premiums?
6. What's the downside?

General Observations

- Consumer's are mostly concerned about
  - Antibiotics
  - Hormones
- They are also concerned about animal welfare.
- They want to help the "small/local" producer.
- They are willing to pay **some** premium for these products.

Common Threads of Most Alternative Production Systems

- Reduction or complete elimination of:
  - Antibiotics
  - Implants
  - Growth promotants (ionophores/ beta-agonists)
  - Animal derived proteins
- Increased record-keeping requirements
- More planning for marketing

Some Economic "Truths"

- Long-term the price of a commodity will approach the total cost of production.
- Most times there is a reason why others are not in a certain enterprise.
- Anything can be profitable if you can charge enough.

Presentation Overview

1. Alternative Program
2. Description/Considerations
3. Economics


Natural Beef

Natural Beef

- Consumer's definition of "Natural" is different from current USDA definition of minimally processed.
- Approximately 20 different lines of natural beef being offered.
- Natural is essentially grain-fed beef without antibiotics, hormones or ionophores.

Natural Beef

- All natural beef programs place limitations on:
  - Antibiotics
  - Implants
  - Ionophores/Beta-agonists
  - Animal derived proteins
- Usually fed in selected feedlots

Economic Tradeoffs

- Cow-calf
  - Reduced implant and antibiotic costs
  - Lower weaning weights (possibly)
  - Increased vet expenses?
- Finishing Phase
  - Reduced implant and antibiotic costs
  - Slower growth
  - Higher feed conversion
  - Higher feed expense
  - Increased vet expense
  - “Fall-out” rate around 20%
  - Higher percentage of cattle grading Choice (10-15%)

Short-story

- Cow-calf producers need $4.00-$6.00/cwt. premium for weaned calves.
- Backgrounded/preconditioned cattle need $7.00-$9.00/cwt. (depending on morbidity and feed conversion).
- Slaughter cattle need $12-$15 carcass cwt. ($7-$9/cwt. live).

Real-world data from South and North Georgia

- North Georgia
  - AN and ANx cow-calf pairs from NW GA Experiment Station (Calhoun) divided into two groups prior to calving (2007).
  - One group treated conventionally the other group treated as natural (no implants, no antibiotics).
  - Both groups weighed at weaning, preconditioned for 60 days and sent to SW IA to be fed in GA Beef Challenge.

Results from NW GA Cattle (2007)

Date	Natural	Conventional	Difference
Weaning	360.5	372.5	11.5
Weaning +30d	445.4	468.0	22.6
Weaning +60d	508.0	537.9	28.9

- 16% fall-out in calf phase from foot-rot on natural calves.
- At weaning needed $4.08/cwt. to cover difference in weight.
- After 60d precon needed $6.34/cwt. to cover difference in weight.
- Carcass data should be available tomorrow ☺

Real-world data from South and North Georgia

- South Georgia
  - Cattle fed in Southwest IA as part of GA Beef Challenge
  - AN and ANx calves
  - Same producer
  - 2 years

Results from Feeding South GA Cattle in Natural Program

Item	2006-2007 67 head		2007-2008 71 head	
	Steers (44)	Heifers (23)	Steers (46)	Heifers (25)
ADG	2.85	2.78	2.51	2.39
Feed:gain	7.13	7.11	8.12	7.99
%Choice	77%	100%	93%	86%
%Prime	5%	17%	0%	12%
% Y3 or less	100%	100%	100%	92%
Backfat	.47		.46	
Average age at slaughter	765 d		653	

Results from Feeding South GA Cattle in Natural Program

Item	2006-2007		2007-2008	
	Steers	Heifers	Steers	Heifers
Carcass weight	702	645	694	624
Feed cost of gain ($/Cwt.)	$69.19	$69.02	$76.20	$75.00
Total cost of gain ($/Cwt.)	$84.70	$84.85	$94.46	$93.14
% Individually treated	6%		36%	
Average Carcass Price ($/Cwt.)	$167.55	$163.94	$157.24	$157.26
Profits ($/head)	$56.01	$18.71	($112.53)	($127.05)

Other Considerations on Natural Cattle

- Often no CAB premium.
- Probably no Prime premium.
- Select discount may not be as severe.
- Delays in slaughter can increase Y4s.
- Heifers can be a problem → Light carcass discount = $20-$30/cwt. vs. $15 in conventional.

Grass Fed Beef Economics

Producing and Marketing Grass-fed Beef

- Can be marketed direct to consumers. Must develop a market and get the cattle killed and processed.
- There are a few companies buying/procuring grass-fed beef.
- Usually marketing is arranged well in advance of slaughter (6-9 months).
- Base carcass price around $175/cwt.
- Usually require at least a semi-load.
- Trucking can be an issue.

Producing and Marketing Grass-fed Beef

- Many have breed requirements (AN or ANx).
- May or may not “pre-enroll” finishing animals.
- Some allow minimal supplementation (0.5% BW), others none.
- NO sub-therapeutic antibiotics. Some allow minimal treatments.
- NO implants or other growth promotants.

Producing and Marketing Grass-fed Beef

- What is your forage base?
- What are your forage management skills?
- What are your supplementation options when grass is short?
- If marketing direct to consumers:
  - How are your people skills?
  - Can you retail the product?
  - What are your slaughter and processing options?

Example Budget of Grass-fed Beef Finishing

- Weaned 500-550# pound calf in July.
- Placed on bermuda/millet pasture until fall (2 head/acre)
- Grazed on winter annuals until late spring (1 head/acre).
- 1% of BW Soyhulls
- Hay for 90 days during transition periods.

Example Grass-fed Beef Finishing Budget

Item	Units	Number of Units	$/Unit	Cost
Calf	Cwt	5.25	$ 100.00	$ 525.00
Procurement	Head	1.00	$ -	$ -
Bermuda pasture	Acres/calf	0.50	$ 150.00	$ 75.00
Millet pasture	Acres/calf	0.50	$ 200.00	$ 100.00
Winter annual	Acres/calf	1.00	$ 200.00	$ 200.00
Soy hulls	Tons	1.07	$ 250.00	$ 268.31
Hay	Tons	0.72	$ 125.00	$ 89.44
Vaccination, dewormer, etc.	Head	1.00	$ 5.00	$ 5.00
Mineral	Lbs.	67.50	$ 0.30	$ 20.25
Labor	Head	2.00	$ 9.00	$ 18.00
Repairs	Head	1.00	$ 5.00	$ 5.00
Land rent	Acres	1.00	$ -	$ -
Miscellaneous	Head	1.00	$ 5.00	$ 5.00
Operating Interest	%	$ 655.50	7.50%	$ 36.37
Death Loss	%	$ 1,311.00	2.00%	$ 13.11
Trucking	Cwt.	10.65	$ 10.00	$ 106.50
Total Variable Cost				$ 1,466.98
Breakeven Sales Price Liveweight				$ 137.74
Breakeven Sales Price Carcass (60% dressing)				$ 229.57
Total Cost of Gain				$ 174.44
Feed-Only Cost of Gain				$ 135.69

Main Points

- Producers should carefully pencil grass-fed beef production.
- Key items are:
  - Sales weight
  - Forage availability and costs
  - Allowed supplements
  - Market access


Organic Beef

Organic Beef

- Rapidly growing market,…recent high prices may have tempered demand some.
- Can be grass-fed or grain-fed.

Organic Beef Cliff Notes

- No antibiotics, no growth hormones.
- Organic pastures (no pesticides, no commercial fertilizers, no sewage sludge, no GMOs and no ionizing radiation).
- Pastures must be free of prohibited products for 3 years.
- Cattle must receive 100% organic feed but can receive certain vitamin and mineral supplements.

Organic Standards

- Animals must be raised under organic management from the last third of gestation.
- Must have access to pasture.
- Before being labeled organic, government approved inspector inspects the farm. Handling or processing facilities must also be certified organic. Certified through AMS.

Organic Beef Economics

- Slightly higher weed management costs ($2-$4/acre).
- Lower fertilizer costs (about $25/acre).
- Lower total costs ($7-$12/acre).
- Similar forage production*
- Higher calf cost (+9-11%) compared to conventional cattle.

Comparison of Organic and Conventional Cow-Calf (Central Florida) – 500 cows

Item	Organic	Conventional
Projected Weaning Weight	475	550
Acres Required	1,625	1,750 (125 for hay)
Tons of hay purchased	625	0.00
Cost/Cow	$479.04	$490.71
Cost/calf marketed	$598.80	$613.39
Cost/cwt. produced	$132.70	$122.98

Comparison of Grass-fed and Grain-fed Organic Cattle

Item	Organic Grass-fed	Organic Grain-Fed
Slaughter weight	1,030	1,250
Profit ($/head)	$378.92	$180.65
Breakeven ($/Cwt.)	$155	$185.65

Oh, BTW

- Assumes land already in production.
- **ASSUMES ACCESS TO ORGANIC FEEDSTUFFS AND HAY.**
- Assumes no health problems.
- $200/liveweight = $2,000 plus per slaughter animal,.. Are you kidding me??
- How many of these can you sell?

Organic Summary

- At today's fertilizer prices, organic may not be such a big adjustment.
- Probably more potential for grass-fed organic vs. grain-fed organic.
- Three-year transition period still a big deal!!
- Overall cow-calf costs can be very similar between organic and conventional.
- Vet costs and forage production are likely major cost variables.
- Finishing costs are considerably more than conventional.
- Definitely want a market before venturing too far down this path.
- May be some potential for organic calf producers to supply organic grass and grain finishers.

Local Beef

Local Beef and Food Products

- Increasing numbers of consumers want to know where their food comes from.
- Consumers want “local” for different reasons:
  - Protest against “industrial agriculture” and “factory food”,
  - Believe it is fresher,
  - Believe it reduces fuel consumption (fossil fuel emissions, etc),
  - Believe it is safer,
  - Desire to help “Family Farms”

Local Beef and Food Products

- Increasing number of food-service requests for local food:
  - Local school boards
  - Colleges
  - Restaurants

Local Marketing Considerations

- May allow producers to direct-market finished beef.
- Access to slaughter and processing facilities?
- Live vs. retail trade?
- Can you meet the demand?
- How are your people skills?

Why NOT Consider Marketing Local

- Usually requires dealing direct with customers.
- Payment could take longer.
- No P&S bonding requirements on individuals buying your beef.
- Possible increased expectations of the “Ranch Experience” as opposed to simply a transaction.

Why Consider Marketing Local

- No label requirements.
- However, can use other labels to add value, e.g., “Local Natural”, “Local Grass-fed”, “Local Organic”, etc.
- Market development can be less expensive.
- Possibly lower transportation and marketing costs.

Overall Summary for Alternative Production Methods

- Alternative production methods offer increased marketing opportunities.
- Allow larger producers to diversify.
- Allow smaller producers to find a niche.
- Usually have higher costs and breakevens than conventional production.
- Marketing and processing usually major limiting factors.
- In today's input market, probably worth considering.


QUESTIONS?