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Challenge of the Decade - State of the Industry; Production & Economic

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Overview

- Beef product trends
- Cattle cost trends
- External factors
- Outlook

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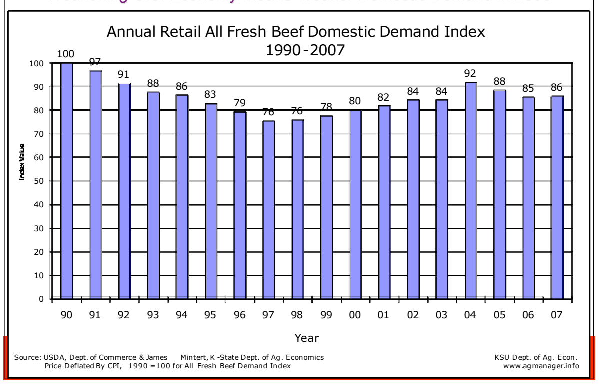
Weakening U.S. Economy Means Weaker Domestic Demand in 2008



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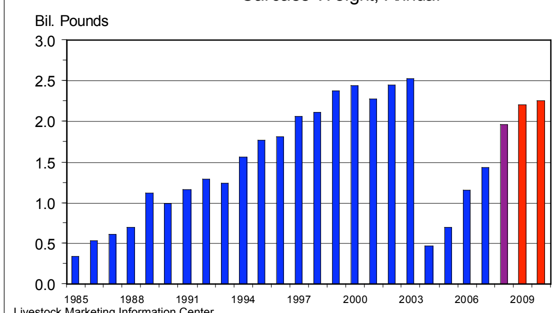
U S BEEF AND VEAL EXPORTS

Carcass Weight, Annual



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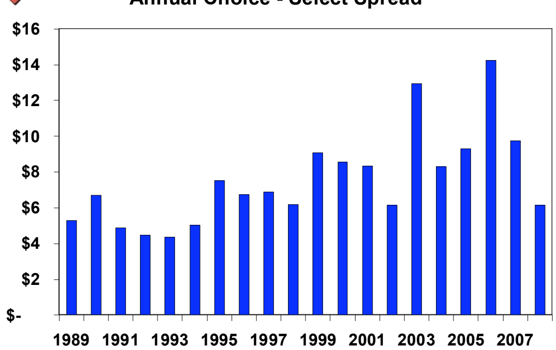
Annual Choice - Select Spread



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The Decade Ahead?

- Near term pressure on beef prices and premiums due to economy
- Aging baby-boomers eat less beef
- Exports expand in Asia and Europe
- Longer term, wider Choice-Select spread due to higher feed costs

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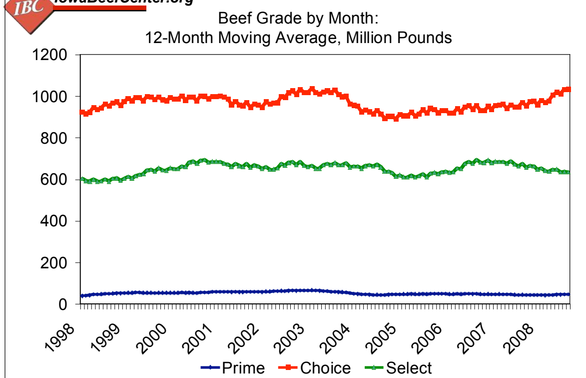

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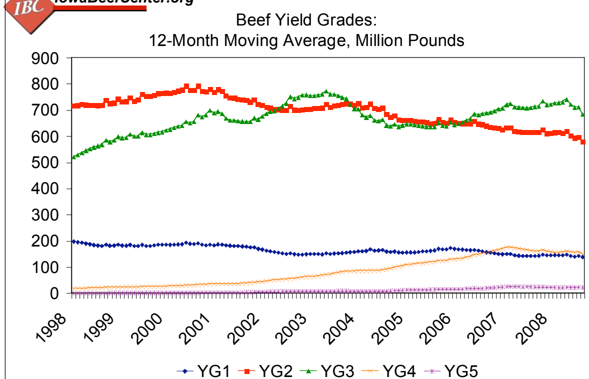

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Implications of Instrument Grading

What happens when grading accuracy improves? This plant added a grader and used one grader for Quality grade and a second grader for Yield grade?

Period 1 (before 06/30/2003)

i* \ *j	Yield 1	Yield 2	Yield 3	Yield 4	Yield 5
YG 1	**58.2%**	5.9%	0.1%	0.0%	0.0%
YG 2	41.0%	**76.8%**	23.2%	0.5%	0.0%
YG 3	0.8%	17.3%	**76.1%**	52.7%	0.0%
YG 4	0.0%	0.0%	0.6%	**46.4%**	42.9%
YG 5	0.0%	0.0%	0.0%	0.4%	**57.1%**

Note: The numbers in the diagonal of the table represent the percentage of observation predicted correctly for each yield grade.

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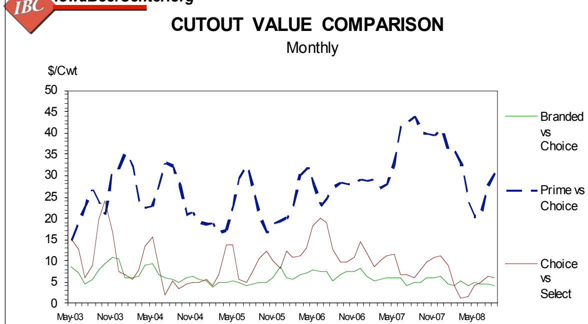

Livestock Marketing Information Center

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The Decade Ahead?

- Instrument grading fully implemented
  - More accurate measurement
  - Greater potential for data retrieval
- Greater emphasis on lean meat yield
  - Fat has higher value, but costly to put on
- Wider spread on Premium Choice and Prime
  - Smaller supply of this product

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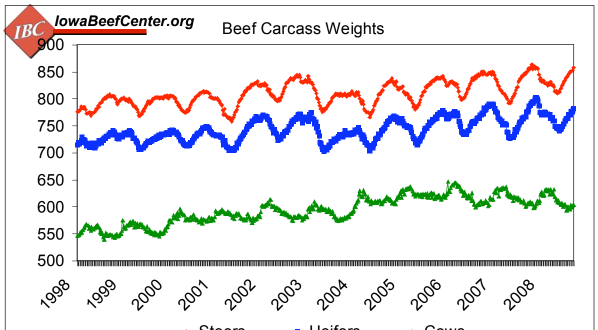

	Steers	Heifers	Cows
1998	779	718	560
2008	824	760	620
Change	6%	6%	11%

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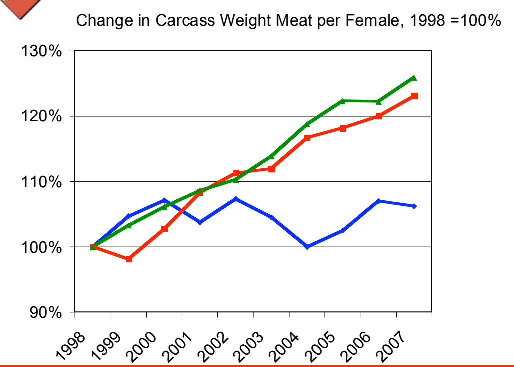

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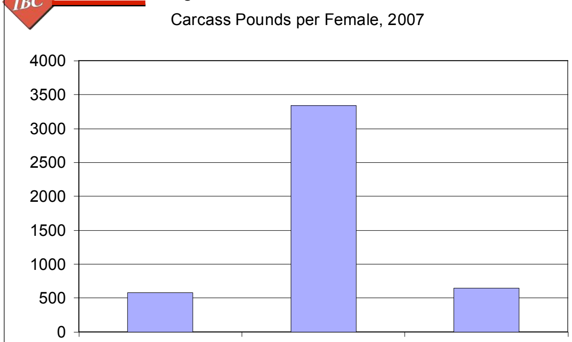

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The Decade Ahead?

- Carcass weights continue upward trend
  - Heavier going into feedlots
  - More efficiency improving technology
- Beef continues higher cost/price relative to poultry and pork
  - Pressures accelerate at higher feed costs
- Steady to smaller cow size
  - Renewed emphasis on efficiency

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Information Trends

- Move from commodity to products
- Multitude of label claims
- Increasing customer expectations
- Show me the money
  - Price or cost differences

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Competing in a Changing World

- Culture of agriculture
  - High level of trust
  - *My word in my bond*
  - *My handshake as good as gold*
- The business world
  - If you can't prove it, it didn't happen

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Competing in a Changing World

- Examples
  - "Natural", Organic, Grass-fed
  - Age-verified, source-verified, genetic-verified
  - *Guaranteed open*
  - *Had all their shots*
  - *Fine when they got on the truck*

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Changing Feeder Cattle Market

- Greater differentiation in cattle and price
- Greater demand for information from buyers
- Impact of health on quality grade
- Trend to certified / verified programs
- Results of recent research in Iowa

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Effect of postweaning disease on carcass traits, feedlot performance and mortality.

	Number of treatments			
	0	1	2	% Change
Prime, %	**1.9**	**1.1**	**0.9**	**-52.6**
Premium Choice, %	**21.5**	**19.5**	**15.2**	**-29.3**
Low Choice, %	**48.8**	**43.4**	**42.8**	**-12.3**
Select, %	**25.2**	**30.1**	**30.5**	**+21.0**
Standard, %	**2.6**	**5.9**	**10.6**	**+307.7**
Yield Grade 1 & 2, %	**52.3**	**65.8**	**71.7**	**+37.1**
Yield Grade 3, %	**44.9**	**32.8**	**28.1**	**-16.8**
Yield Grade 4 & 5, %	**2.8**	**1.4**	**0.2**	**-2.6**
ADG, lbs.	**3.24**	**3.13**	**3.07**	**-5.2**
Mortality Rate, %	**0.1**	**3.7**	**8.7**	**+8600**

Source: Busby, Strohbehn, Beedle, and Corah

Difference in dollars returned per head relative to the number of treatments

	Number of treatments		
	NT	ST	2T
Death loss discount*, $	PAR	–31.07	–100.04
Treatment cost**, $	PAR	–20.60	–48.43
ADG reduction#, $	PAR	–24.49	–35.71
Yield grade premium, $	PAR	+2.90	+4.59
Quality grade discount, $	PAR	–10.39	–19.41
Light carcass discount, $	PAR	–1.55	–1.58
Dark cutter adjustment, $	PAR		–0.58
Total difference, $	**PAR**	–85.02	–201.16

**Accounts for cost of gain investment and lost carcass value.*
***Includes medicine, labor and chute/equipment charges.*
#Based on additional carcass weight gained during the feeding period.

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Feeder Cattle Premium for the Amount and Source of Information

($/cwt)

Vacc, but Not Weaned	2.42[c]
Weaned, but Not Vacc	1.70[c]
Not Vaccinated and Not Weaned	Base[d]

Coefficients with different superscripts are statistically different at P<.001

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Market Access Programs

- Organic
- Non-hormone treated cattle
- Process Verified Programs
  - Age verification for Japan
  - New Grass-fed standard
  - Proposed “Naturally raised” standard

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The Decade Ahead?

- Increasing consumers & customers demands
- USDA programs to protect markets and consumers from fraud
  - Affidavits give way to audited systems
  - Value process over product
- Brands are the new regulations
- Higher minimum requirements for all

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External Factors Driving Costs

- Higher energy costs
- Bioeconomy expansion
- Input costs are rising
- Competition and costs of land

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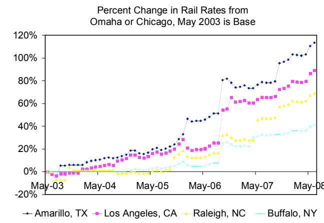
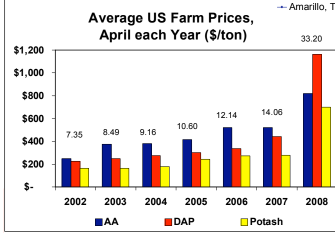
Oil was $20 in January 2002 and topped $140 in June

Gov't forecast is for oil to be $57 by 2016 and $113 by 2030





In the last five years

Rail rates from Omaha to Amarillo more than doubled

Fertilizer and manure values more than tripled

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Change in Midwest Livestock and Poultry Advantage: 2008 v. 2004, $/head

	Bushel per head	Corn Transport	Manure Nutrients	Combined Advantage
Grow-Finish	10	$4.09	$9.88	$13.97
Dairy Cows	113	$85.13	$175.67	$260.80
Beef Feedlot	**60**	**$20.79**	**$26.45**	**$47.24**
Layers	1	$0.75	$1.02	$1.77
Turkeys	1.15	$0.47	$1.83	$2.30

Nutrient value based on corn-soybean rotation, N=$.70, P_2O_5=$1.00, K_2O=$.60.
Corn basis to: hogs and turkeys = NC, dairy and layers =CA, beef=TX

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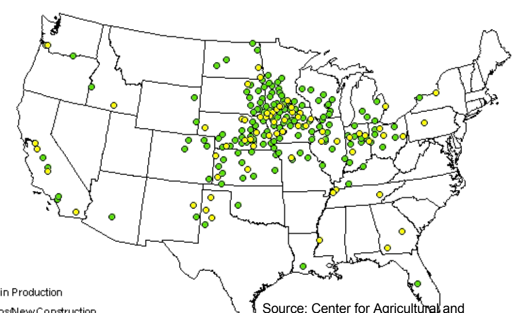
US Ethanol Plants, May 2008



Source: Center for Agricultural and Rural Development

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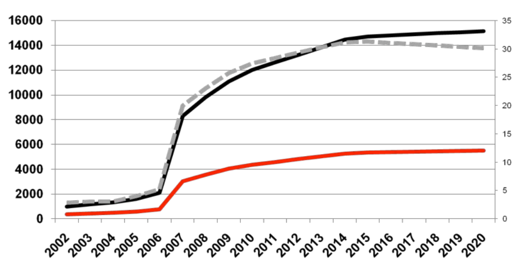
Ethanol Production & Acreage



Source: Matt Roberts Ohio State University

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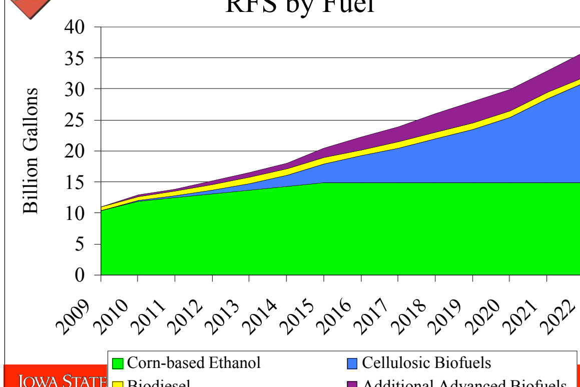
RFS by Fuel



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Ethanol Economics, 10/03/08

Gal/bu	**2.8**
Ethanol $/gal	**$2.08**
DDGS $/t	**$135**
Revenue $/bu	**$6.97**
Corn Cost	**$4.24**
Return over Corn	**$2.73**
Estimated operating cost per bu	$1.73
Estimated fixed costs per bu	$.67

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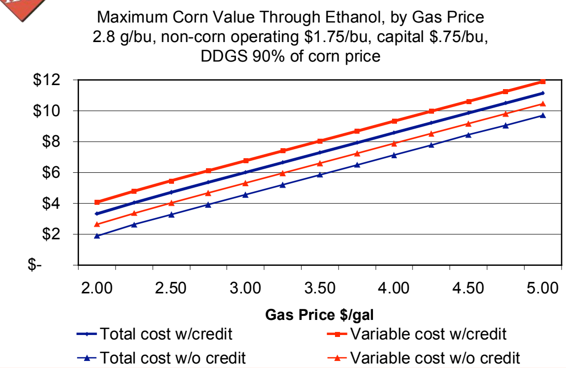

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Alternative Energy Beyond Ethanol

- Biodiesel mandate driving soy prices
- Cellulosic ethanol competes for roughage
- Animals as an energy source
  - Methane production
  - Biodiesel from tallow
  - Carbon credit trading
  - Green energy

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The Decade Ahead?

- Corn linked to oil prices
- Genie out of the bottle
- What will change?
  - Cheaper oil
  - More world course grain acres and yields
  - Expansion of cellulosic ethanol
- Rethink business models built on cheap oil, fertilizer and corn

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Feedstuff Prices

	Crop Years	
	99-04	**2006**
Corn Price ($/bu)	**$2.04**	**$3.19**
SBM Price ($/ton)	**$194.70**	**$198.40**
Hay Price ($/ton)	**$96.10**	**$114.80**
DDGs price ($/ton)		**$107.61**
WDGs Price ($/ton)		**$35.41**

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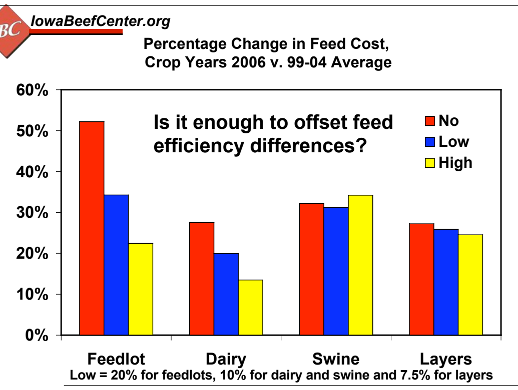

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Feed Price Implications

Breakeven Purchase Price to Pay for 550# Steer Sold at 1200#

Corn	Fed Cattle Selling Price					
Price	**$80**	**$90**	**$100**	**$110**	**$120**	**$130**
$3.00	$90	$111	$132	$153	$175	$196
$4.00	$82	$103	$124	$145	$167	$188
$5.00	$74	$95	$116	$137	$159	$180
$6.00	$66	$87	$108	[illegible]	$151	$172
$7.00	$58	$79	$100	$121	$143	$164
$8.00	$50	$71	$92	$113	$135	$156

Cowherd Estimated Cost of Production

Variable Cost $120

Total Cost $150+

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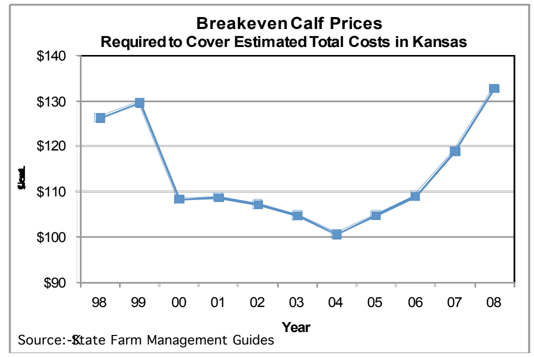
Rising Breakevens Putting Pressure On Cow-Calf Sector

'08 Breakevens Up 12% Compared to '07



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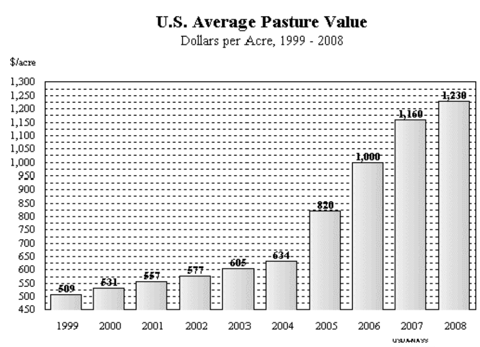

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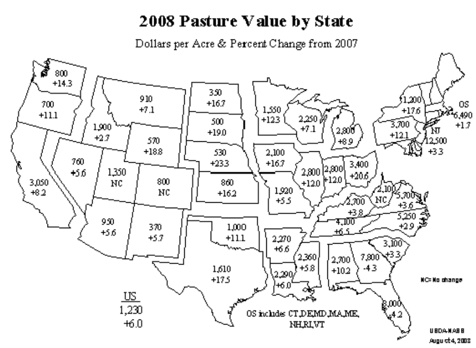

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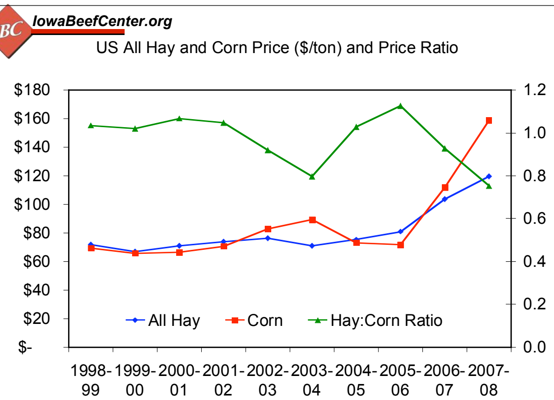

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The Decade Ahead?

- Downward pressure on calf prices due to higher cost of gain on grass or in feedlot
- Higher cost of production for cowherds
  - Competition for land
  - Hay prices increase to follow corn
  - Non-feed cost higher as well
- Economic efficiency essential
  - *Optimize* production
  - Manage cost and finances

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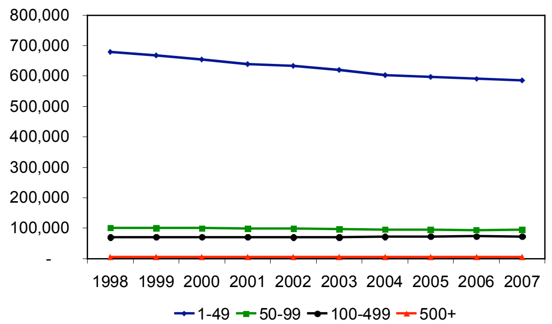
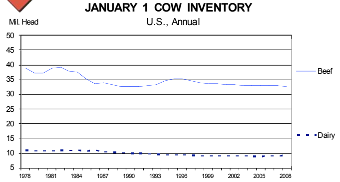
Number of Beef Cow Operations, US



US Beef Cow Inventory and Operations by Size, 2007

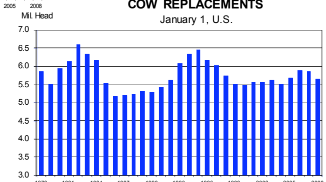
Cows per Farm	1-49	50-99	100-499	500+
Farms (1000)	585	94	73	5.5
Inventory Share	27.7%	18.6%	38.7%	15.0%
Inventory (1000)	9,111	6,118	12,729	4,934
Average Inventory	15.6	65.1	174.4	897.0

Source: USDA Farms, Land in Farms, and Livestock Operations



Beef Cows -1%

Beef Heifers -3.5%



Livestock Marketing Information Center
Data Source: USDA/NASS

The Decade Ahead?

- Beef cow inventory declines until 2010-11
  - Decline in smaller herds
  - Loss of pasture in crop areas
  - Pressure from yearlings in range country
- Rebound in later years
  - Higher prices
  - More efficient producers

Take Home

The world in which you operate has fundamentally changed.

How have you changed your business???

The Challenges Ahead?

- More demanding consumer
  - Both product and process
- Stiffer competition
  - Pork and poultry
- Emphasize efficiency
  - Animal and system level

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The Opportunities Ahead?

- Brands will gain strength
  - Existing brands have a head start
- Renewable energies tied to land
  - Land owners will see wealth grow
- Emerging technologies for quality and cost
  - Higher costs, prices and premiums give superior cattle and managers a larger edge

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Thank you!

Any Questions?

www.econ.iastate.edu/faculty/lawrence/
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