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# Situation and Outlook Cattle Market 2008 and Beyond

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# Situation and Outlook

- Outlook for production and price
- Energy policy
- Feed cost
- Regional competitiveness
- Emerging issues

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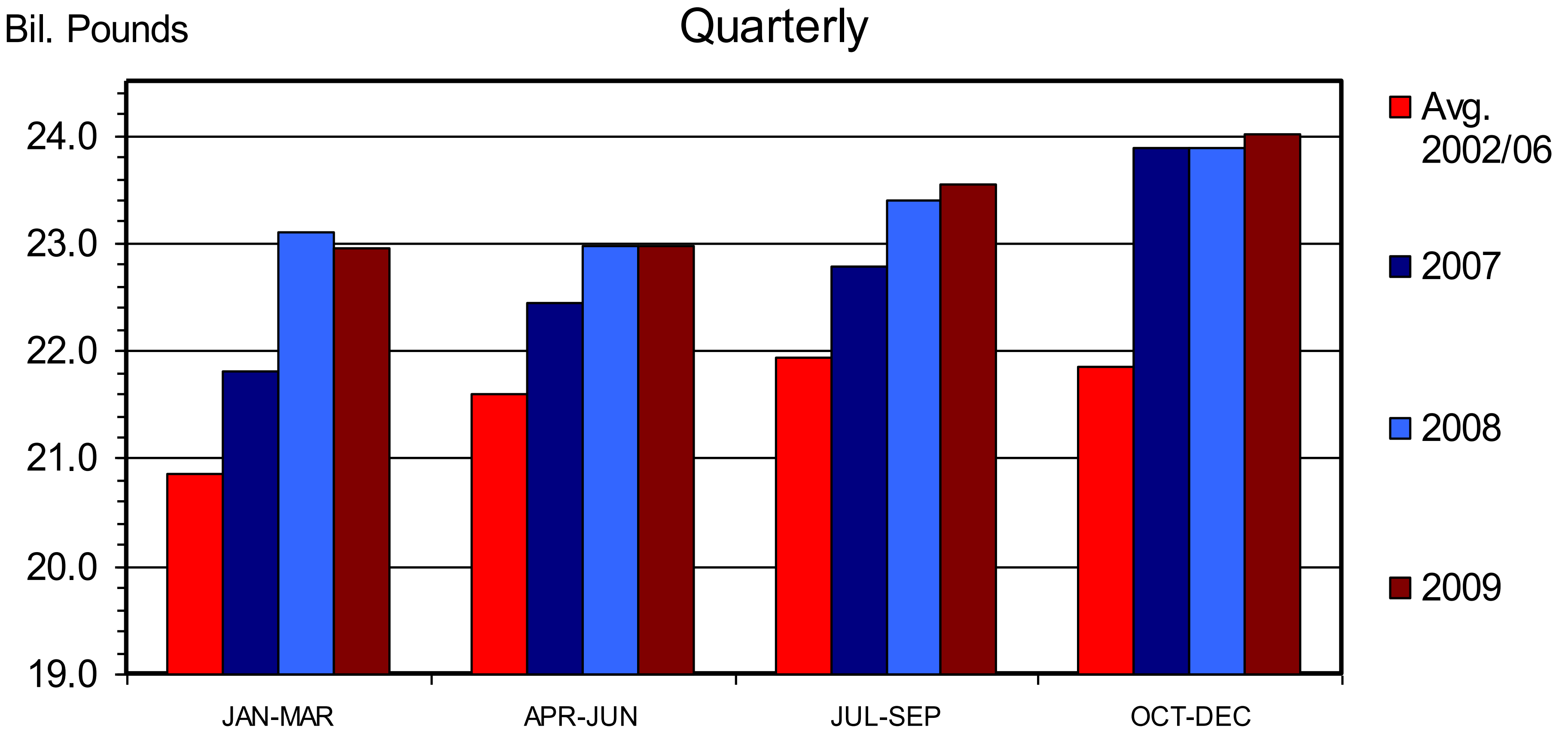
# TOTAL RED MEAT & POULTRY PRODUCTION




**Higher feed costs not limiting supply yet!!!!!**

**But, signs that chicken and pork are starting to cut back**

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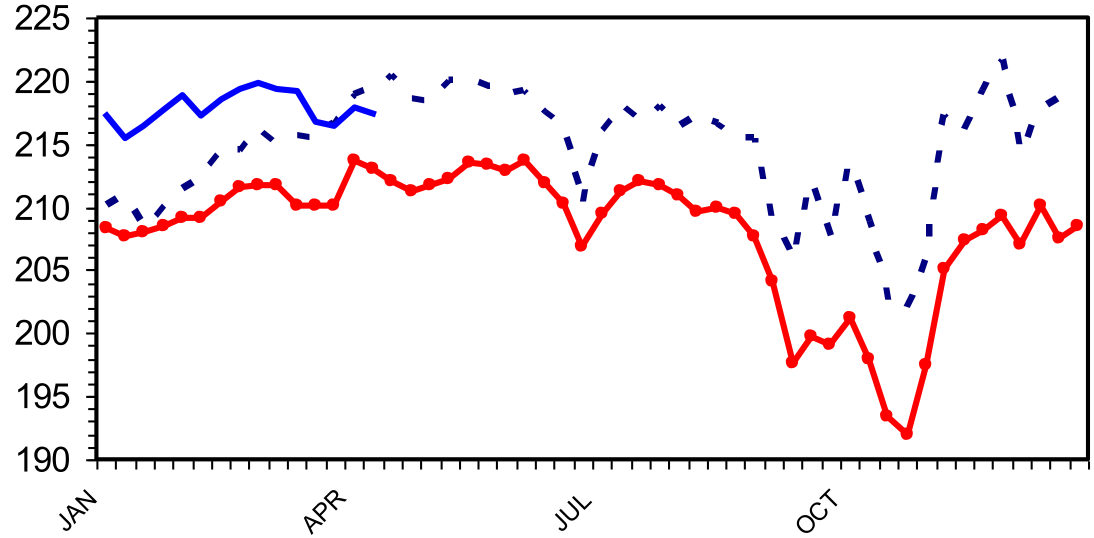
# BROILER EGGS SET

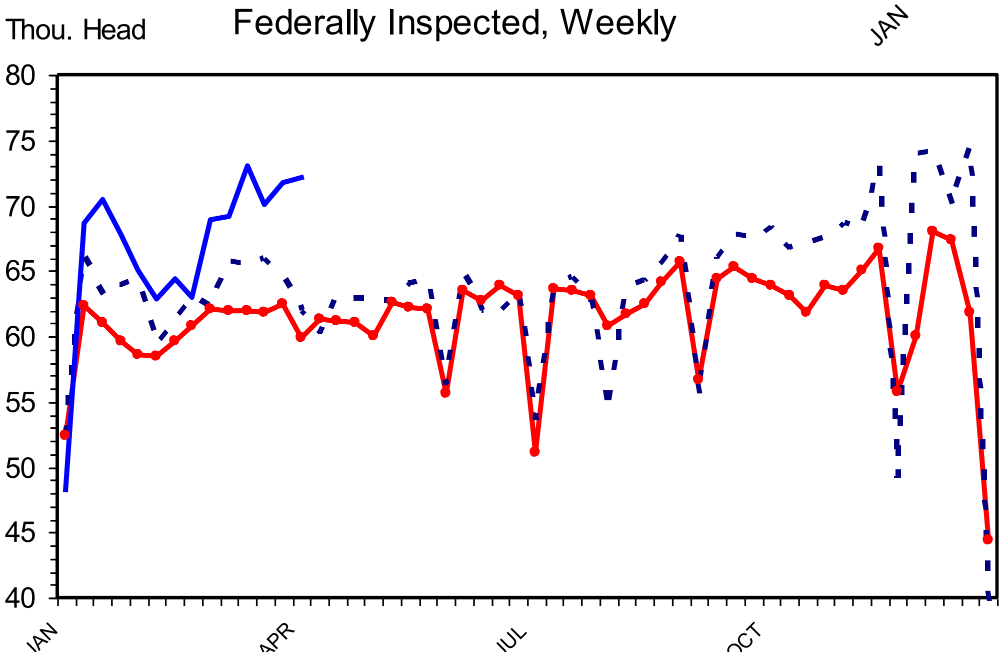
Weekly




- Broiler supplies higher through April
- Look for Broiler supply to decline in the weeks ahead

## SOW SLAUGHTER

Federally Inspected, Weekly

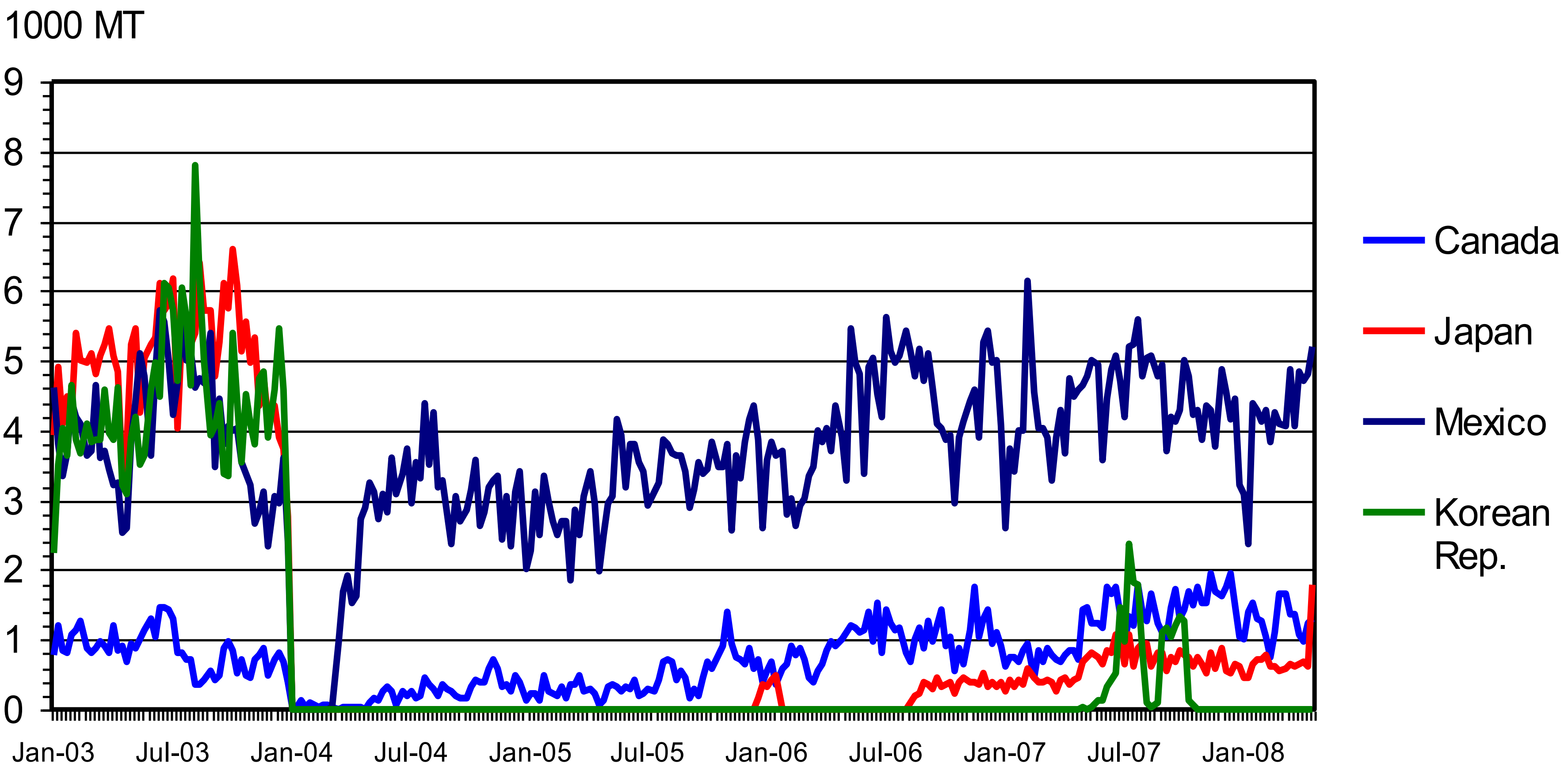



**Hog breeding herd March 1 and Sow Slaughter in next 5 weeks**

| | 2007 | 2008 | % Chg | Hd Chg |
|---|---|---|---|---|
| Brdg herd | 6110 | 6138 | 0.5% | 28.0 |
| 5 weeks | 324 | 356 | 10.1% | 32.6 |

# U.S. EXPORTS OF BEEF MUSCLE CUTS

Weekly

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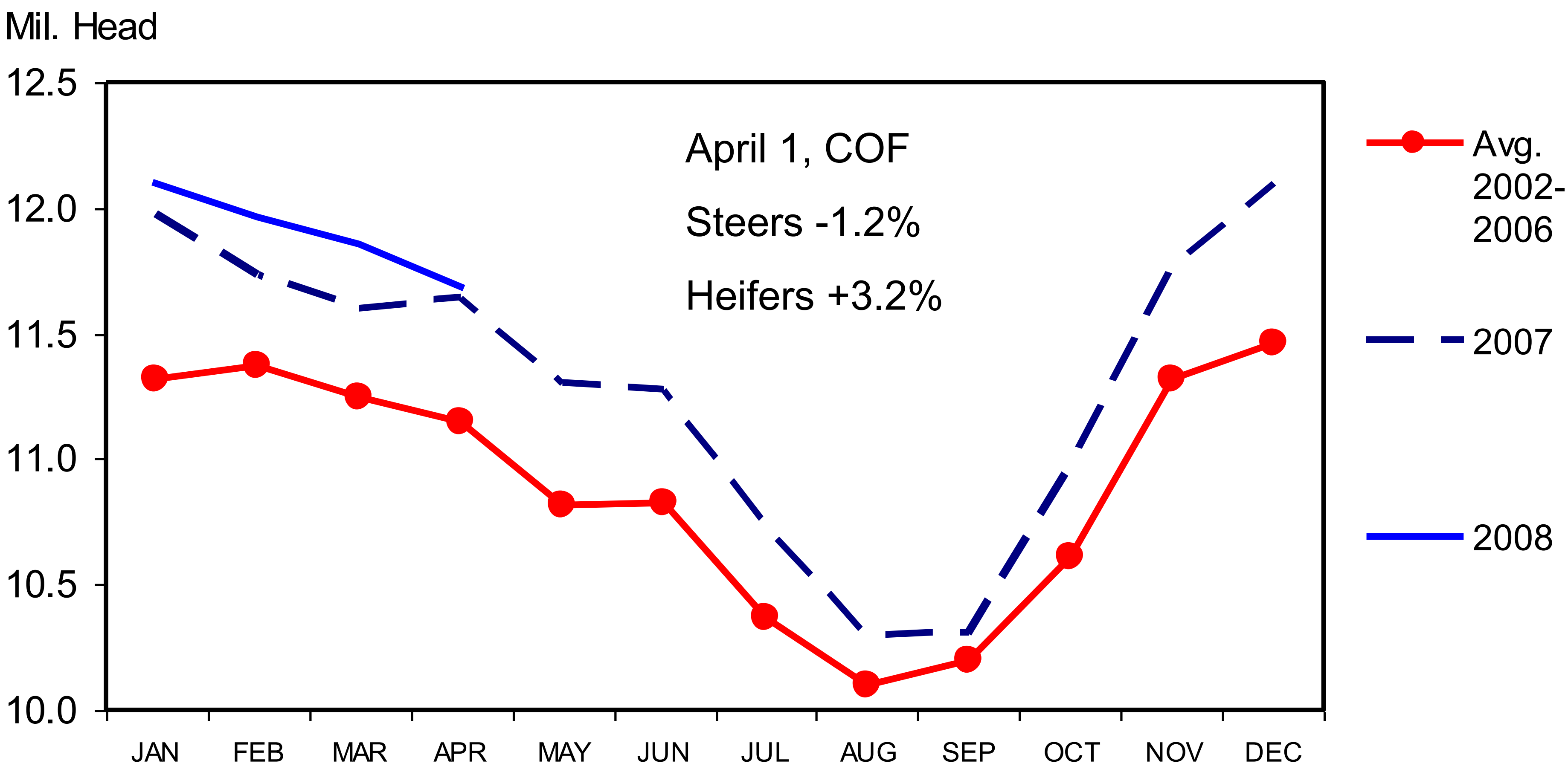
# CATTLE ON FEED

## US Total, Monthly

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Data Source: USDA/NASS

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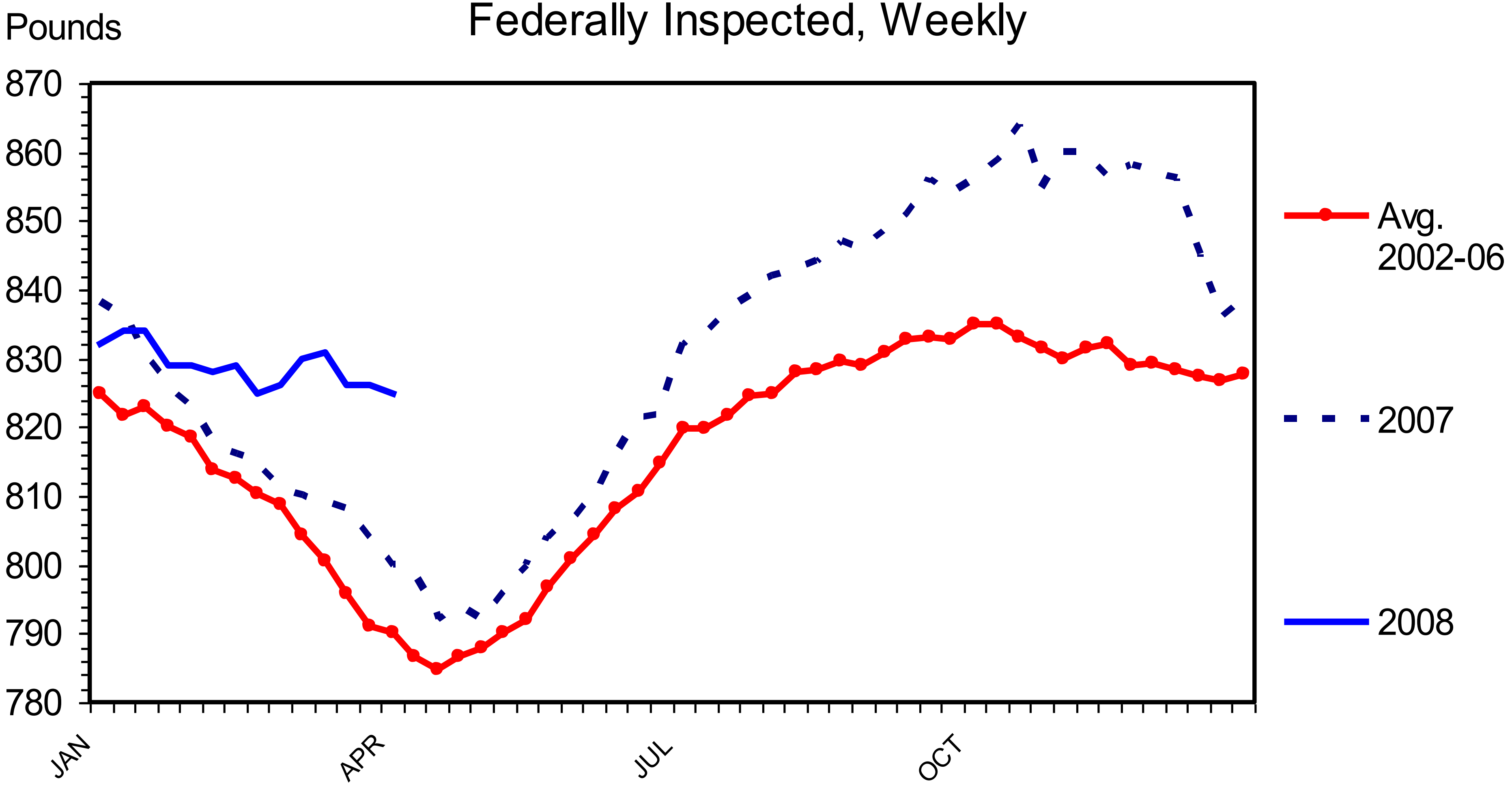
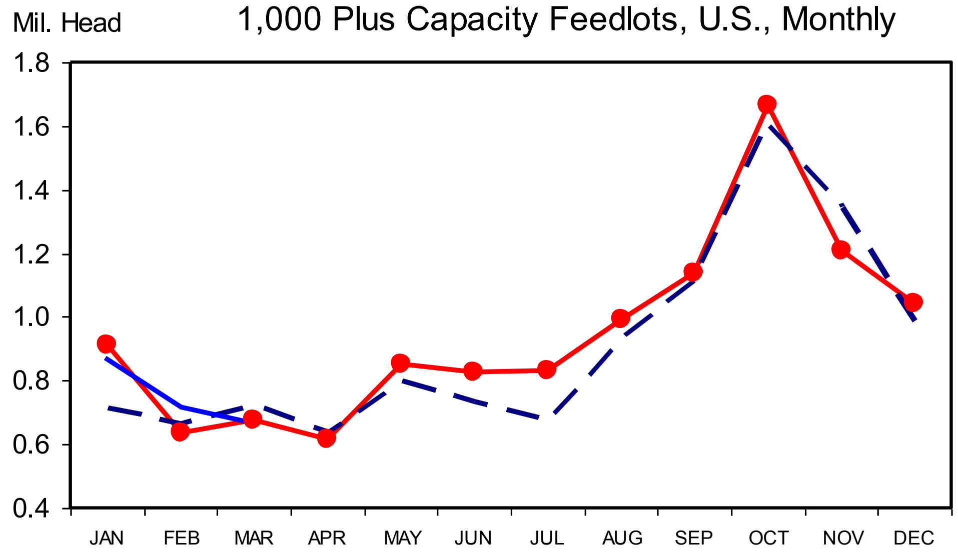
# STEER DRESSED WEIGHT

Federally Inspected, Weekly



## CATTLE PLACED WEIGHING LESS THAN 700 POUNDS

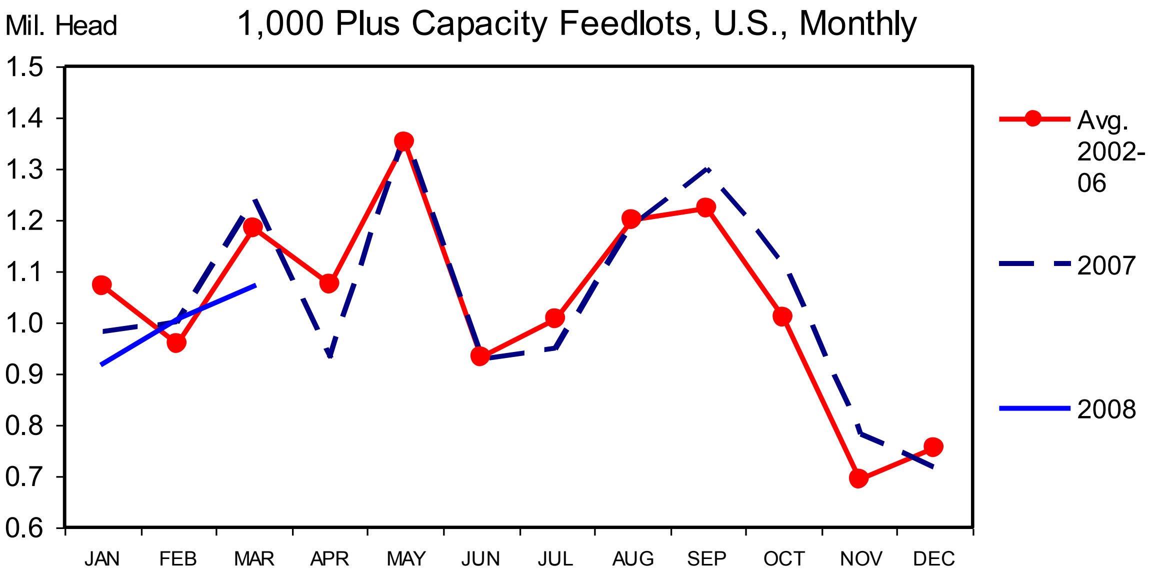
1,000 Plus Capacity Feedlots, U.S., Monthly




- Placement of lighter cattle ahead of 2007
- Up 158,000 or 7.6%

## CATTLE PLACED WEIGHING MORE THAN 700 POUNDS

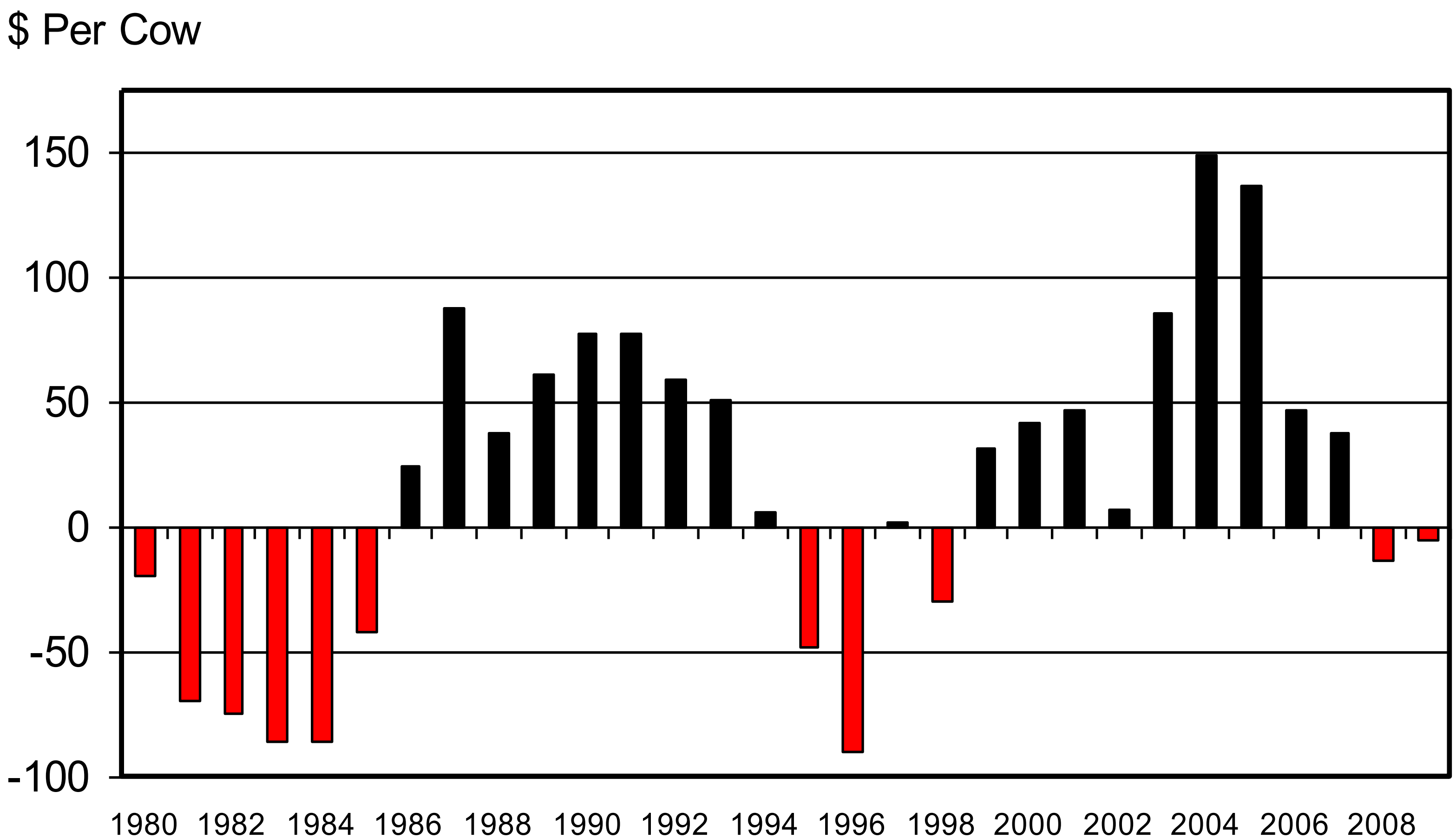
1,000 Plus Capacity Feedlots, U.S., Monthly




- Placement of heavier cattle behind 2007
- Down 221,000 or -6.9%

# ESTIMATED AVERAGE COW CALF RETURNS

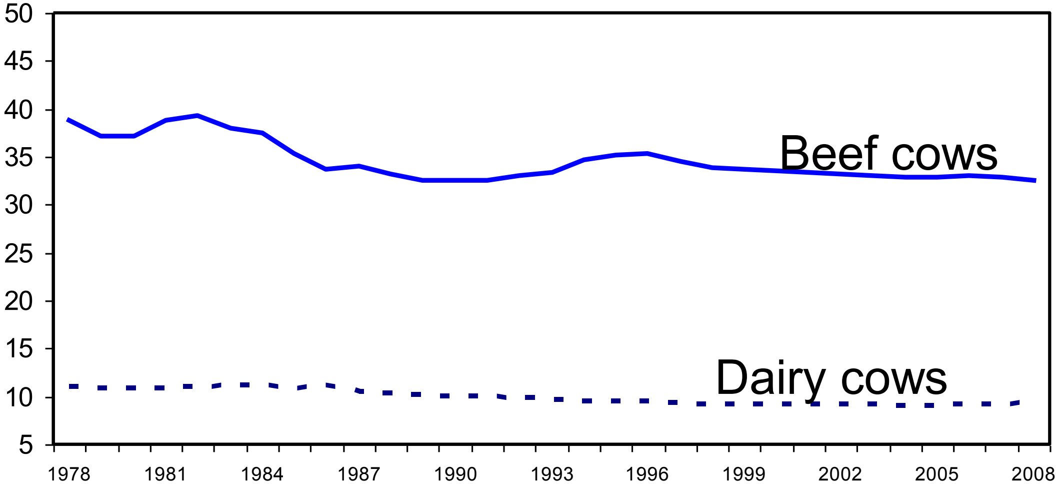
Returns Over Cash Cost (Includes Pasture Rent), Annual



## JANUARY 1 COW INVENTORY

Mil. Head

U.S., Annual




Beef Cows -1%

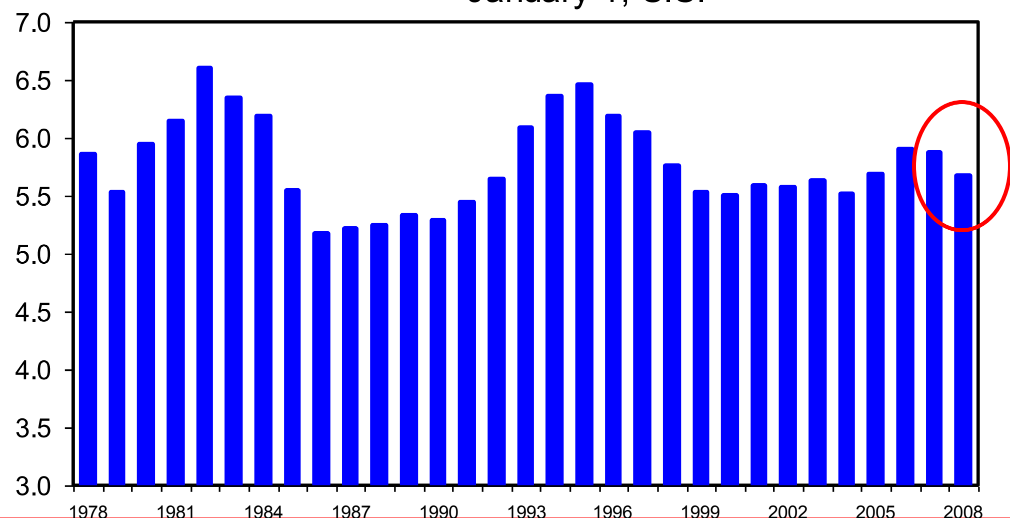
Beef Heifers -3.5%

Smallest beef cow inventory since 1990

## HEIFERS HELD AS BEEF COW REPLACEMENTS

Mil. Head

January 1, U.S.

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Data Source: USDA/NASS

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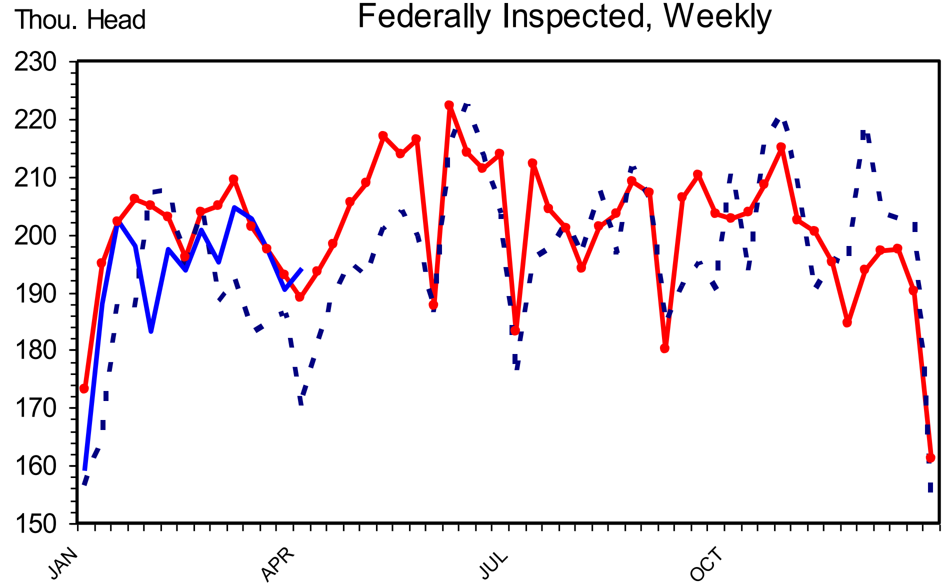
First 14 weeks of 2008

- Heifer slaughter +3.6%
- Steer slaughter -0.9%

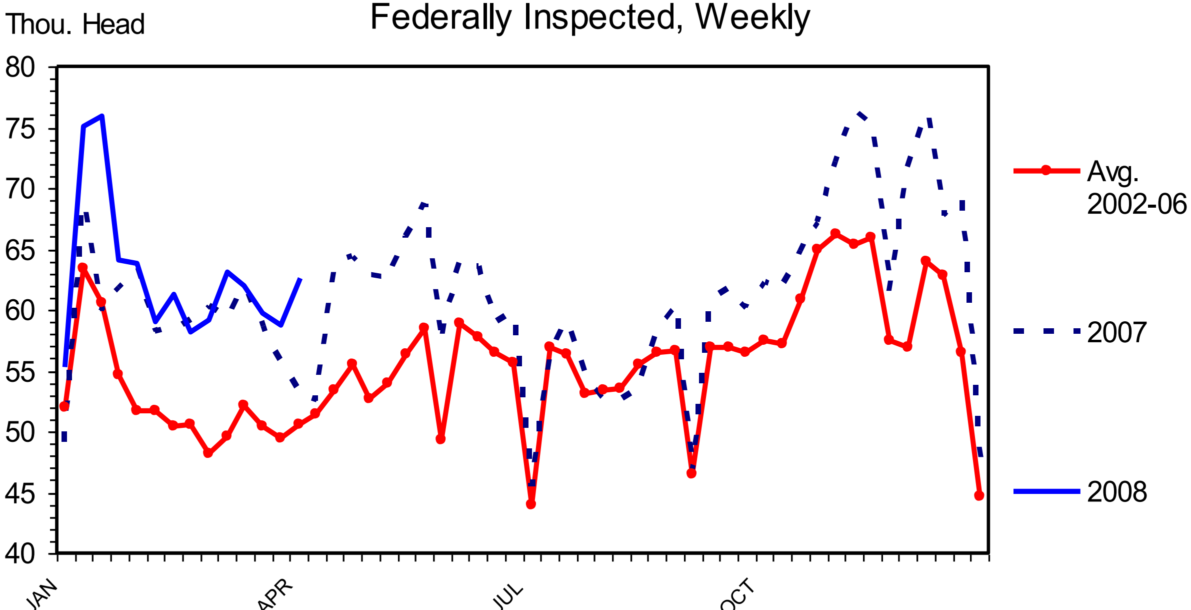
## HEIFER SLAUGHTER

Federally Inspected, Weekly




## BEEF COW SLAUGHTER

Federally Inspected, Weekly




First 14 weeks of 2008

| | |
|---|---|
| Total cow slaughter | +3.2% |
| Milk cow | 0.0% |
| Beef cow | +6.0% |

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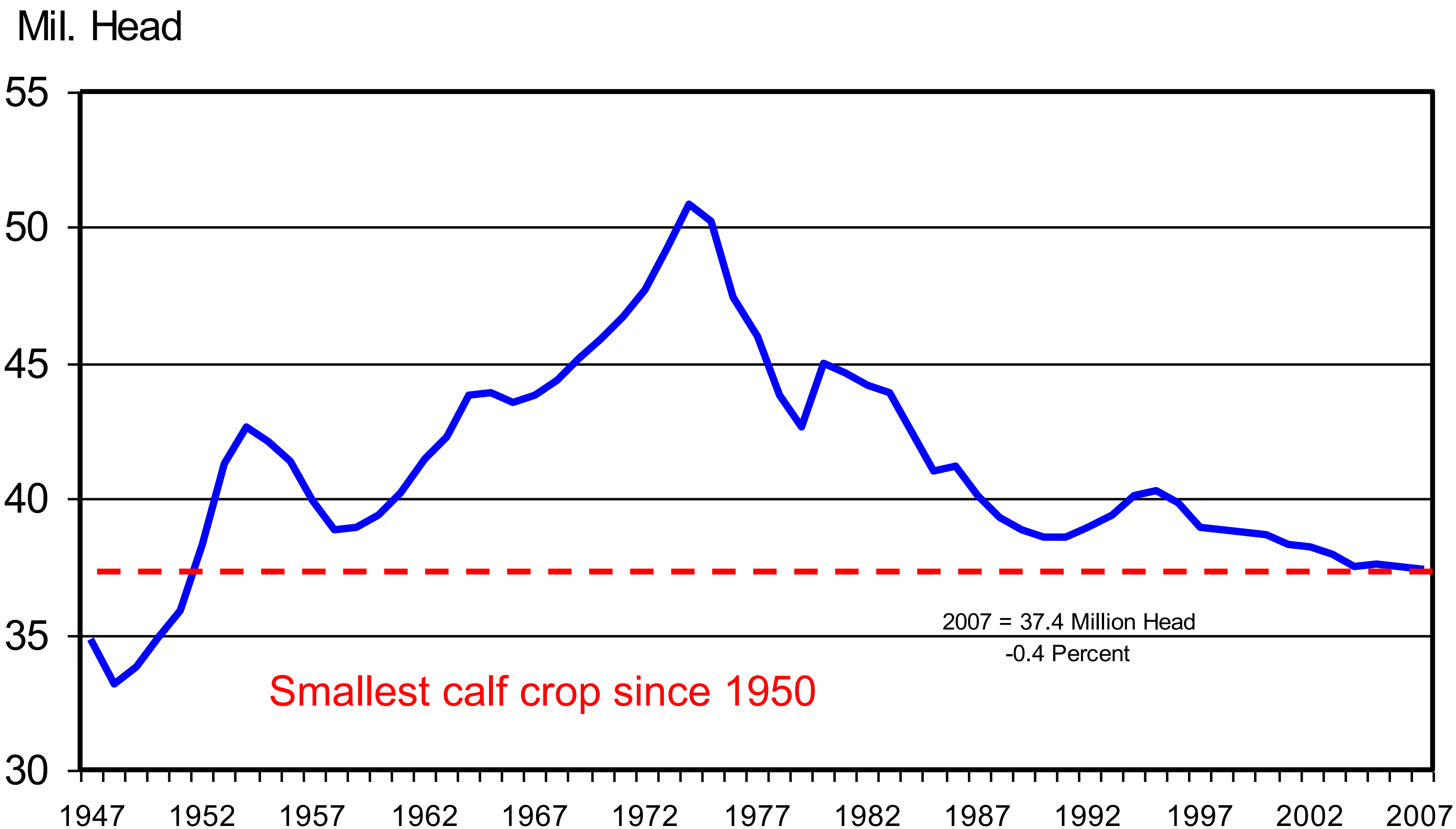
# CALF CROP

U.S., Annual

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Data Source: USDA/NASS

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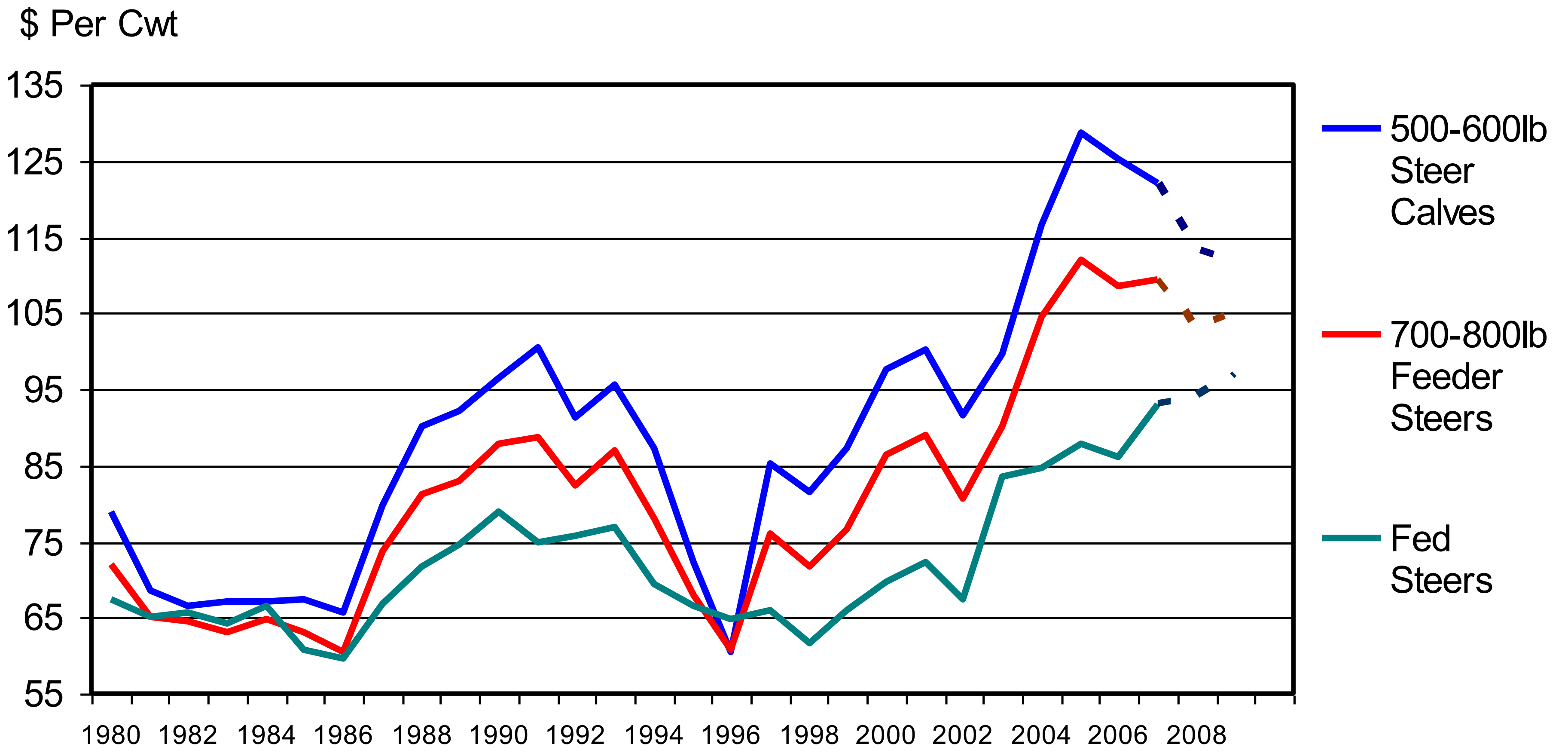
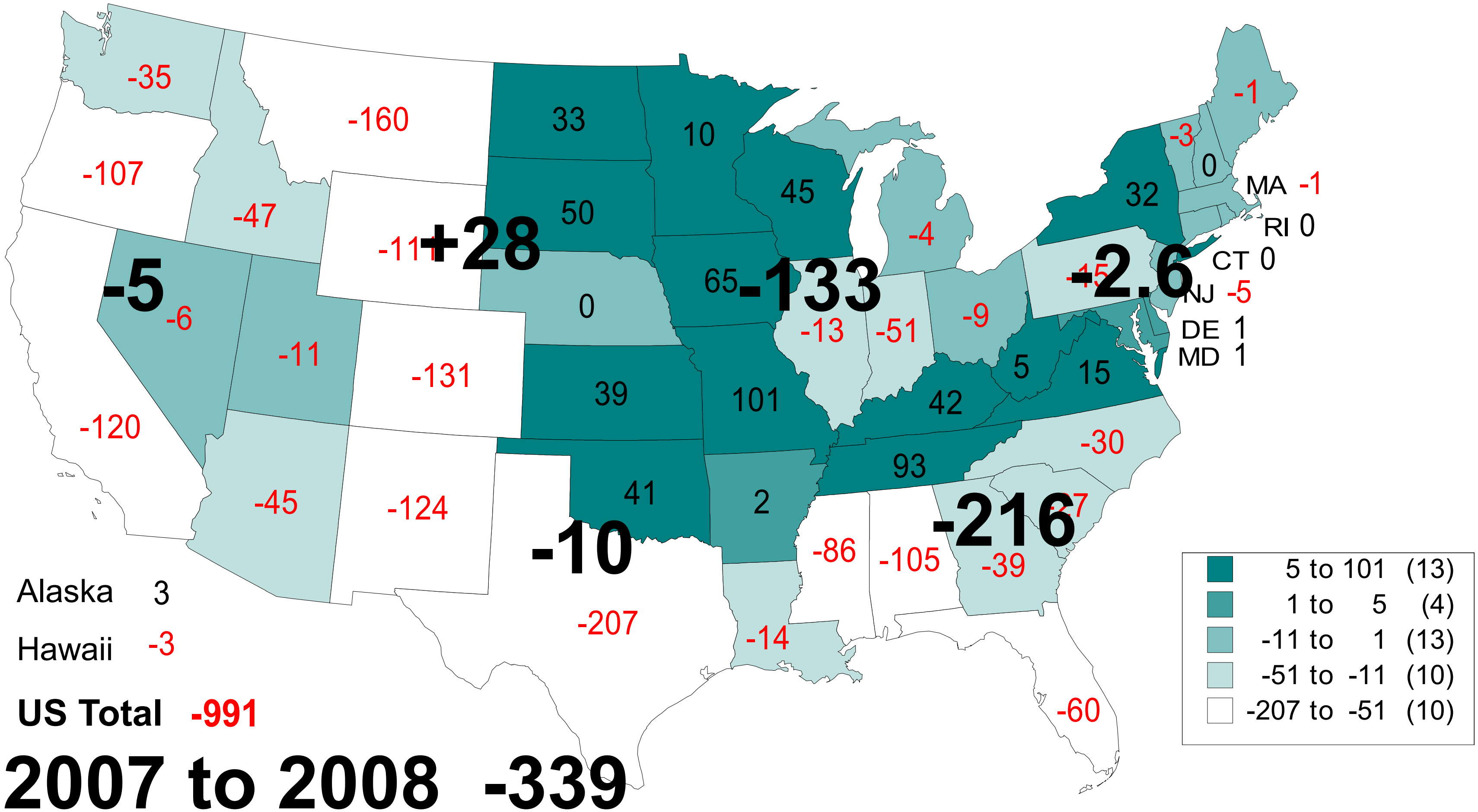
# ANNUAL AVERAGE CATTLE PRICES



# CHANGE IN BEEF COW NUMBERS JANUARY 1, 1998 TO JANUARY 1, 2007

(1000 Head)




Livestock Marketing Information Center

Data Source: USDA/NASS

C-N-29
02/02/07

# Cattle Market Summary

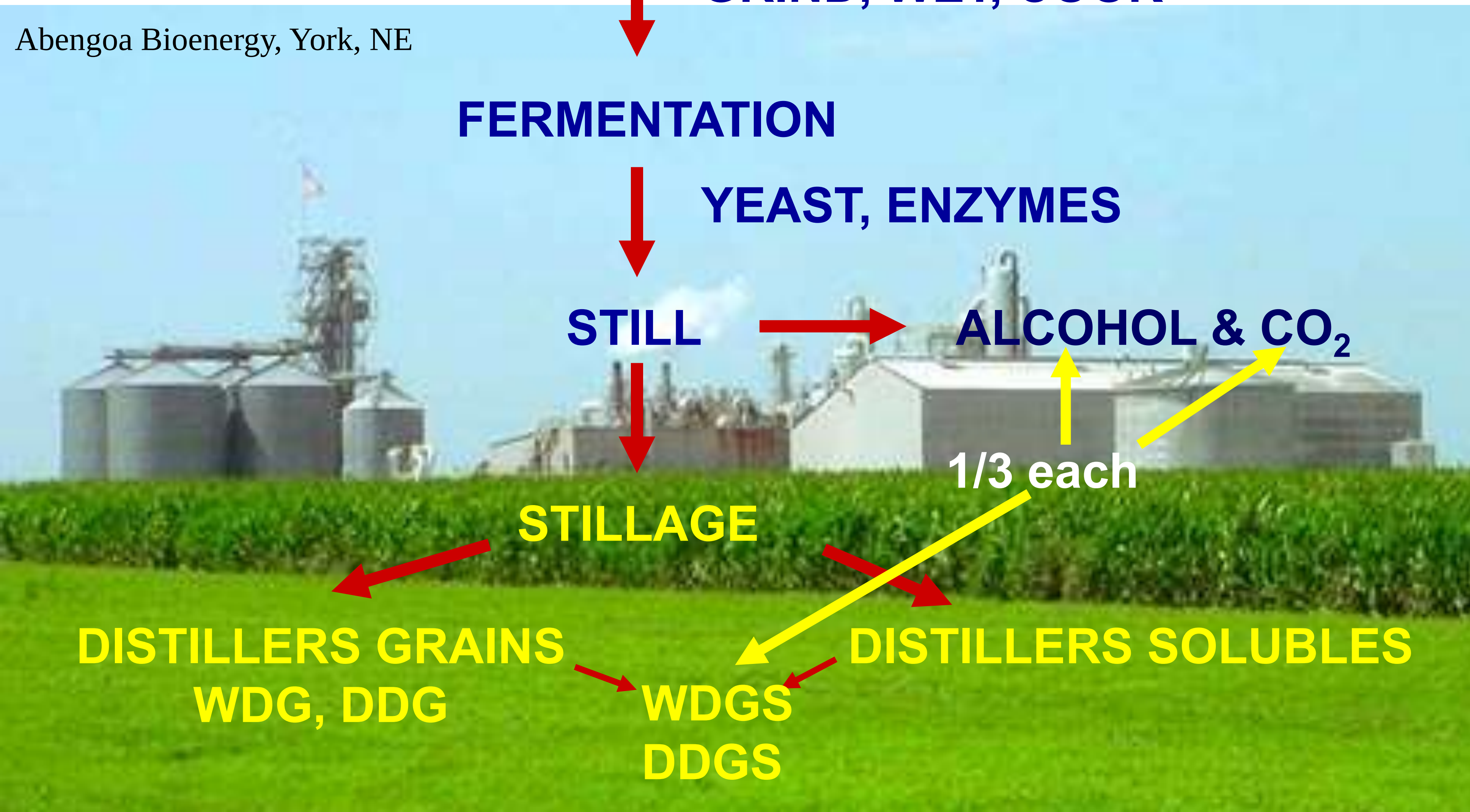
- Large losses in feedlots currently
- Optimism about fall futures have feeder cattle bid well above hedgeable returns
- Korea announcement likely slow to materialize
- Cowherds pressured from both sides
- Excess capacity in feedlots will keep feeders higher than they should be

# Ethanol Economics and Feed Price Implications

# DRY MILLING-WDG(+S)

GRAIN

GRIND, WET, COOK



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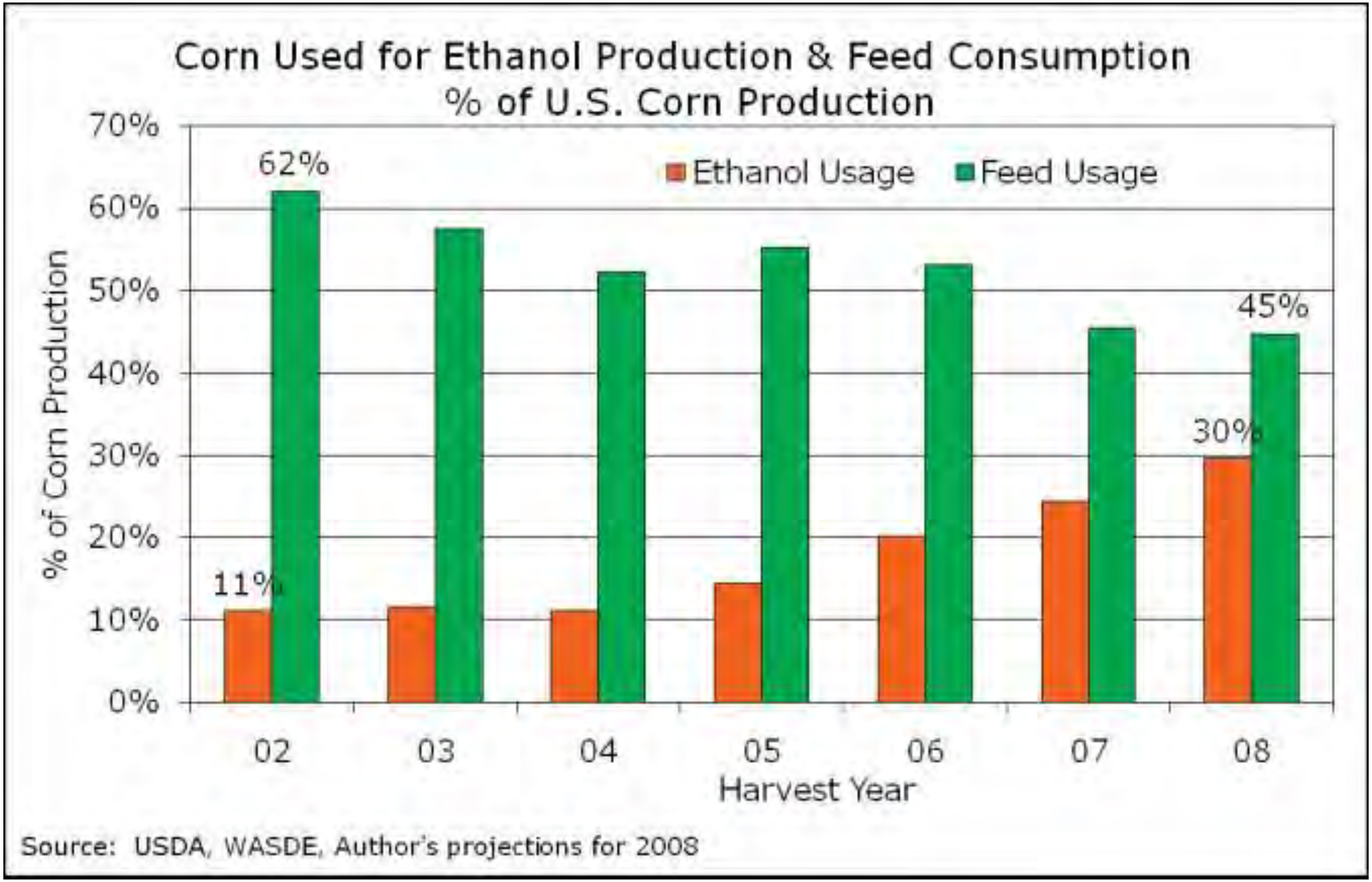
# Corn Used for Feed and Ethanol






Source: Renewable Fuels Association

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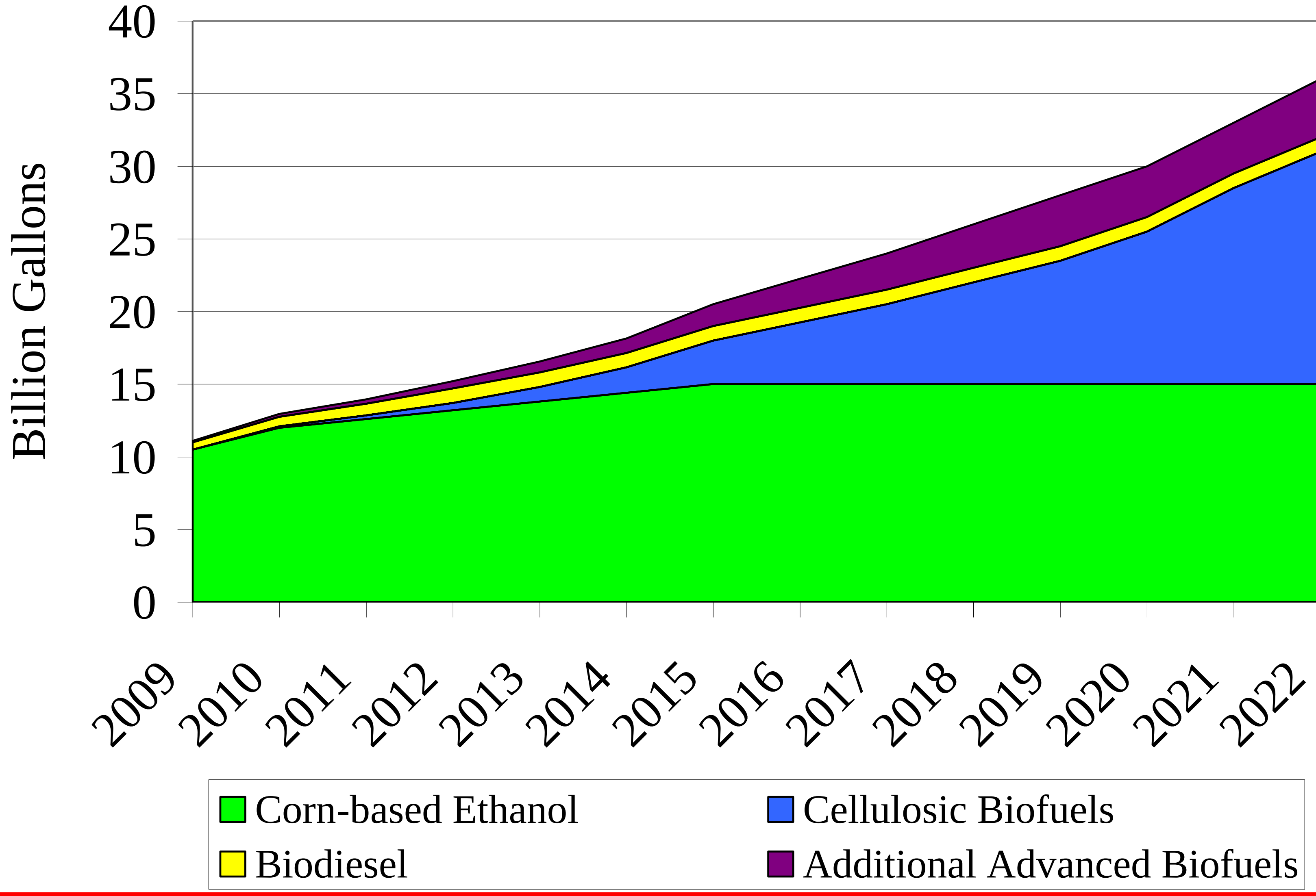
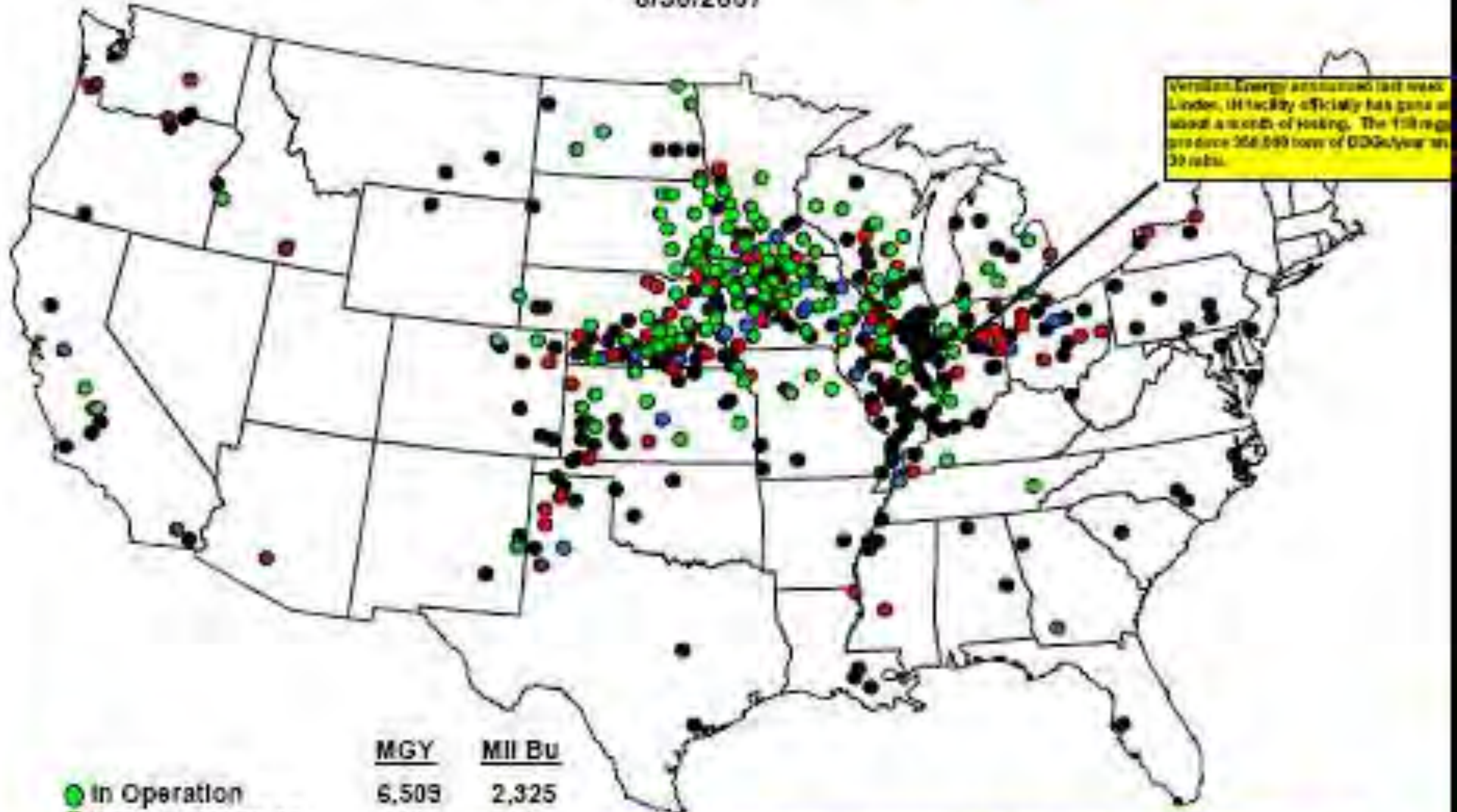
## Renewable Fuel Standard by Fuel Type, December 2007 Energy Bill



# US Ethanol Plants

8/30/2007



| | MGY | Mil Bu |
|---|---|---|
| In Operation | 6,509 | 2,325 |
| Under Expansion | 263 | 94 |
| Under Construction | 4,796 | 1,713 |
| Ground Broken | 2,693 | 962 |
| Planned | 21,937 | 7,835 |

Only plants using corn as a feedstock are shown. Plants "Under Construction" have broken ground and have poured concrete. Plants that have "broken ground" have begun site work but no actual construction. Plants that are "planned" have been talked about or announced in the news.

# Ethanol Production Plans

| | BGY | BBu | MTon |
|---|---|---|---|
| **Operation-Expansion** | 6.7 | 2.4 | 20.6 |
| **Operation-Construct** | 11.6 | 4.1 | 35.1 |
| **Operation-Broke grd** | 14.3 | 5.1 | 43.3 |
| **Operation-Planned** | 36.2 | 5.1 | 43.3 |

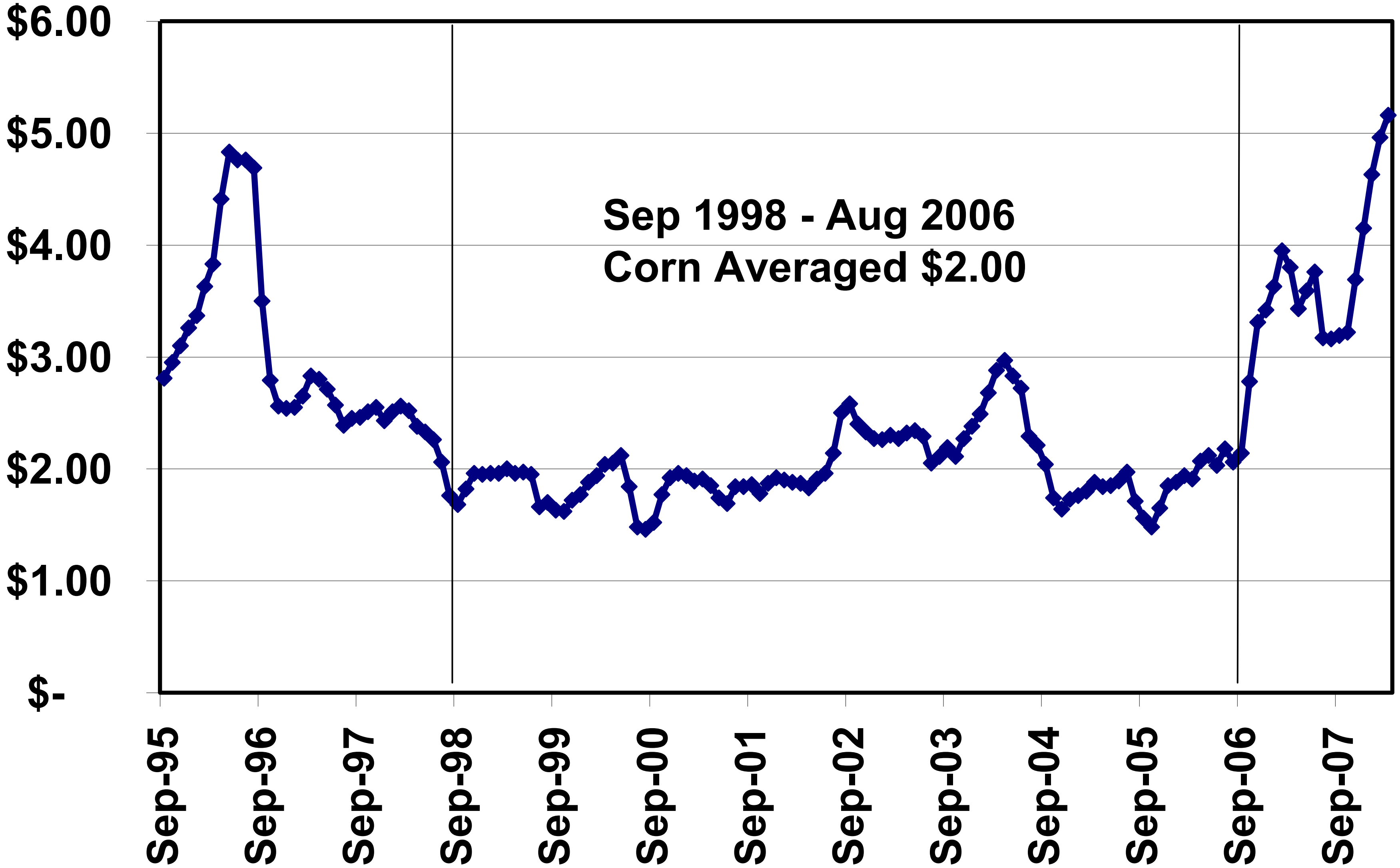
Target for corn based ethanol is 15 BGY by 2022

Target for total biofuels is 36 BGY by 2022

# Ethanol Economics

| | |
|---|---|
| **Gal/bu** | **2.8** |
| **Ethanol $/gal** | **$2.52** |
| **DDGS $/t** | **$170** |
| **Revenue $/bu** | **$8.50** |
| **Corn Cost** | **$5.61** |
| **Return over Corn** | **$2.89** |
| Estimated operating cost per bu | $1.73 |
| Estimated fixed costs per bu | $.67 |

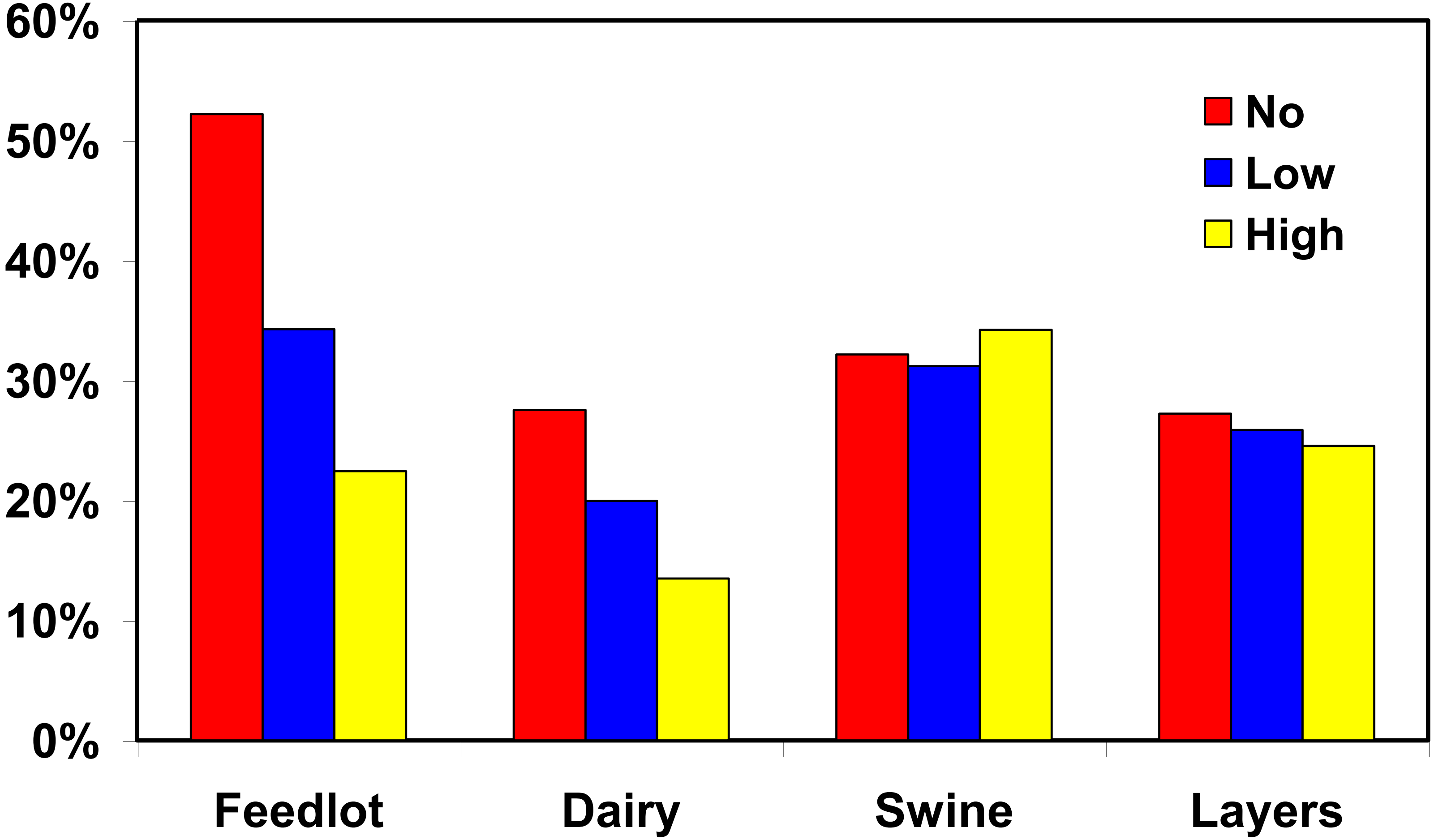
# Omaha Corn Prices



# 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 |

# Percentage Change in Feed Cost, Crop Years 2006 v. 99-04 Average




Low = 20% for feedlots, 10% for dairy and swine and 7.5% for layers

High = 40% for feedlots, 20% for dairy and swine and 15% for layers

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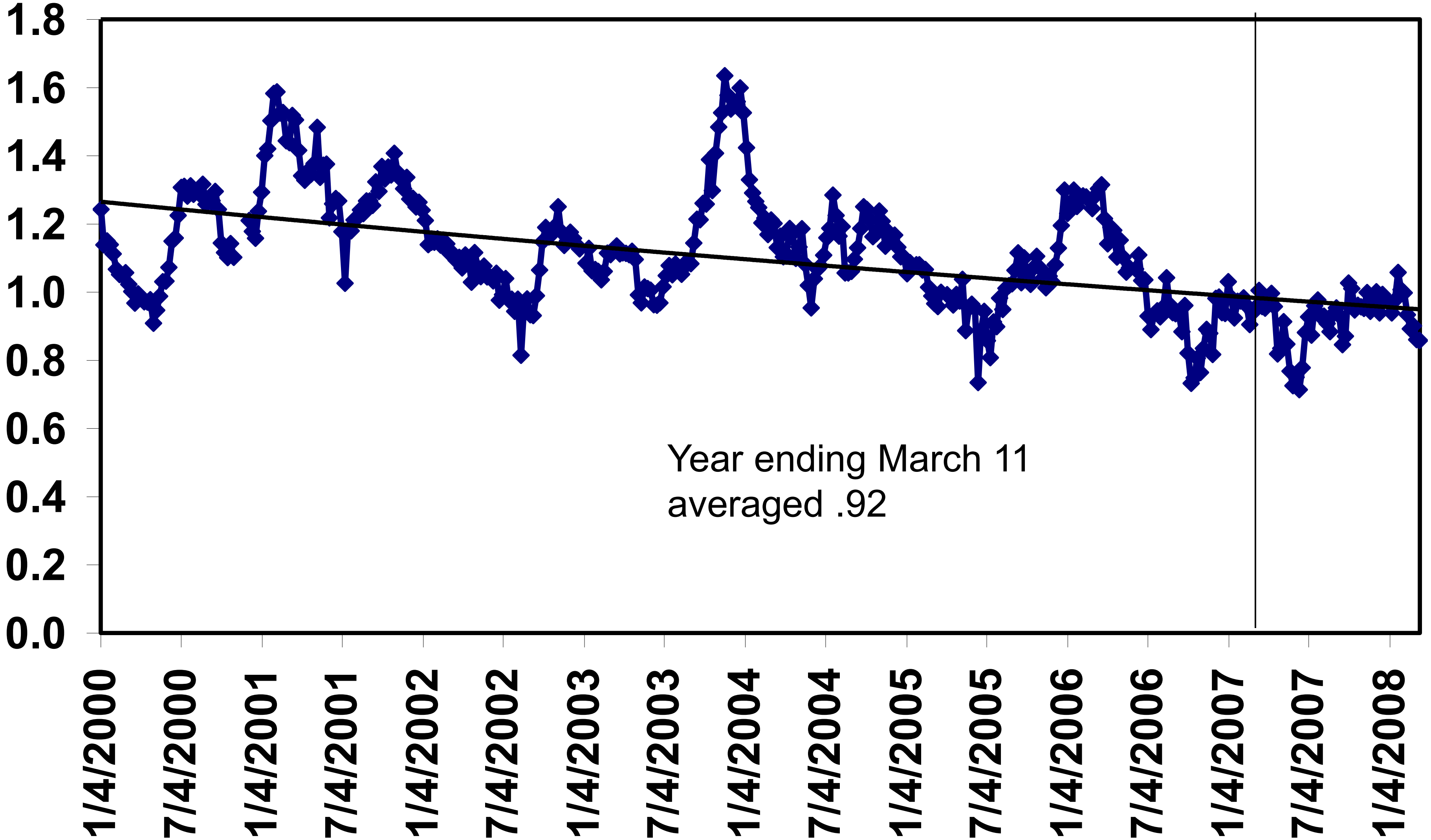
# Price Ratio DDG/Corn Chicago



# Converting Fiber to Ethanol

- 6/27/2007, POET produces cellulosic ethanol from corn cobs

- "… *First, the fiber that comes from our fractionation process will provide 40 percent of our cellulosic feedstock from the corn kernels that we are already processing in our facility*. "

# Implications for Corn Market

- Integrated gas and corn markets
- Higher price level
- Implied volatility impacts option premiums
  - 1997 to 2005 yearly average was below 22%
  - 2006 was 28.8%
  - 2007 was 32.4%
  - New crop 2008 in February 2008 was 35%

# CARD, February 2008

- Baseline scenario
  - 90 million acres of corn and trend yield
  - National average corn price $4.97

| Mandate | Relax | Keep |
|---|---|---|
| – Drought ‘88 113 bu | $6.42 | $7.99 |
| – Bumper ’04 169 bu | $4.06 | $4.07 |
| – Remove $.51 credit | $4.15 | $5.20 |

## Breakeven Purchase Price to Pay for 650# Steer Calf

| Corn | Fed Cattle Selling Price | | | | | |
|---|---|---|---|---|---|---|
| Price | $85.00 | $90.00 | $95.00 | $100.00 | $105.00 | $110.00 |
| $4.00 | 90.68 | 100.26 | 109.84 | 119.42 | 129.00 | 138.58 |
| $4.50 | 87.31 | 96.89 | 106.47 | 116.05 | 125.63 | 135.21 |
| $5.00 | 83.93 | 93.51 | 103.09 | 112.67 | 122.25 | 131.83 |
| $5.50 | 80.56 | 90.14 | 99.72 | 109.30 | 118.88 | 128.46 |
| $6.00 | 77.19 | 86.77 | 96.35 | 105.93 | 115.51 | 125.09 |
| $6.50 | 73.81 | 83.39 | 92.97 | 102.55 | 112.13 | 121.71 |
| $7.00 | 70.44 | 80.02 | 89.60 | 99.18 | 108.76 | 118.34 |
| $7.50 | 67.07 | 76.65 | 86.23 | 95.81 | 105.39 | 114.97 |
| $8.00 | 63.69 | 73.27 | 82.85 | 92.43 | 102.01 | 111.59 |

$80/t MDGS, 8% Int, $30 freight, $0.35 yardage

# Oil Price and Bioeconomy

- Higher energy prices
  - Supported ethanol production
  - Increased freight rates
  - Increased fertilizer prices
- Corn deficient region price is Midwest PLUS freight

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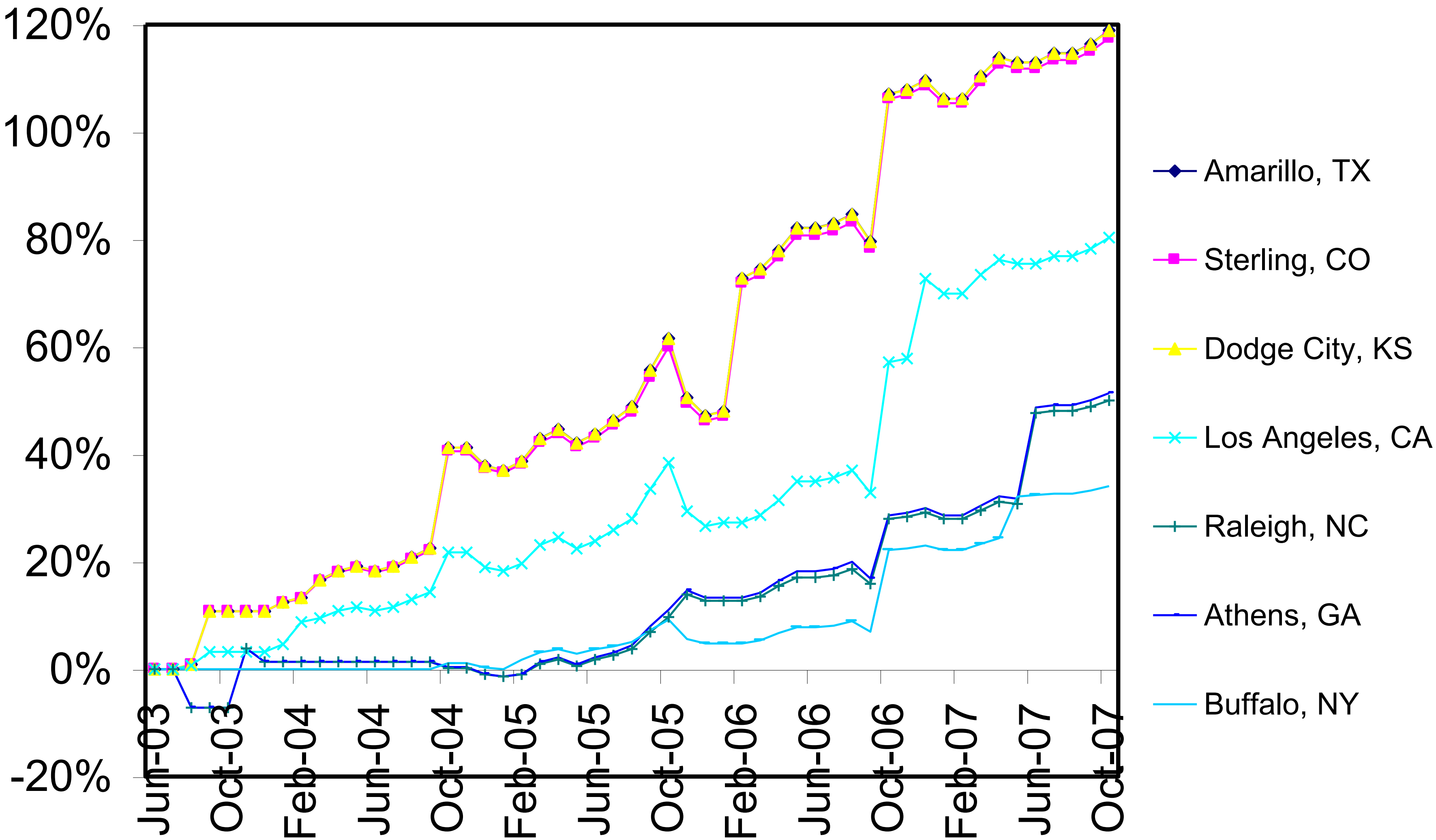
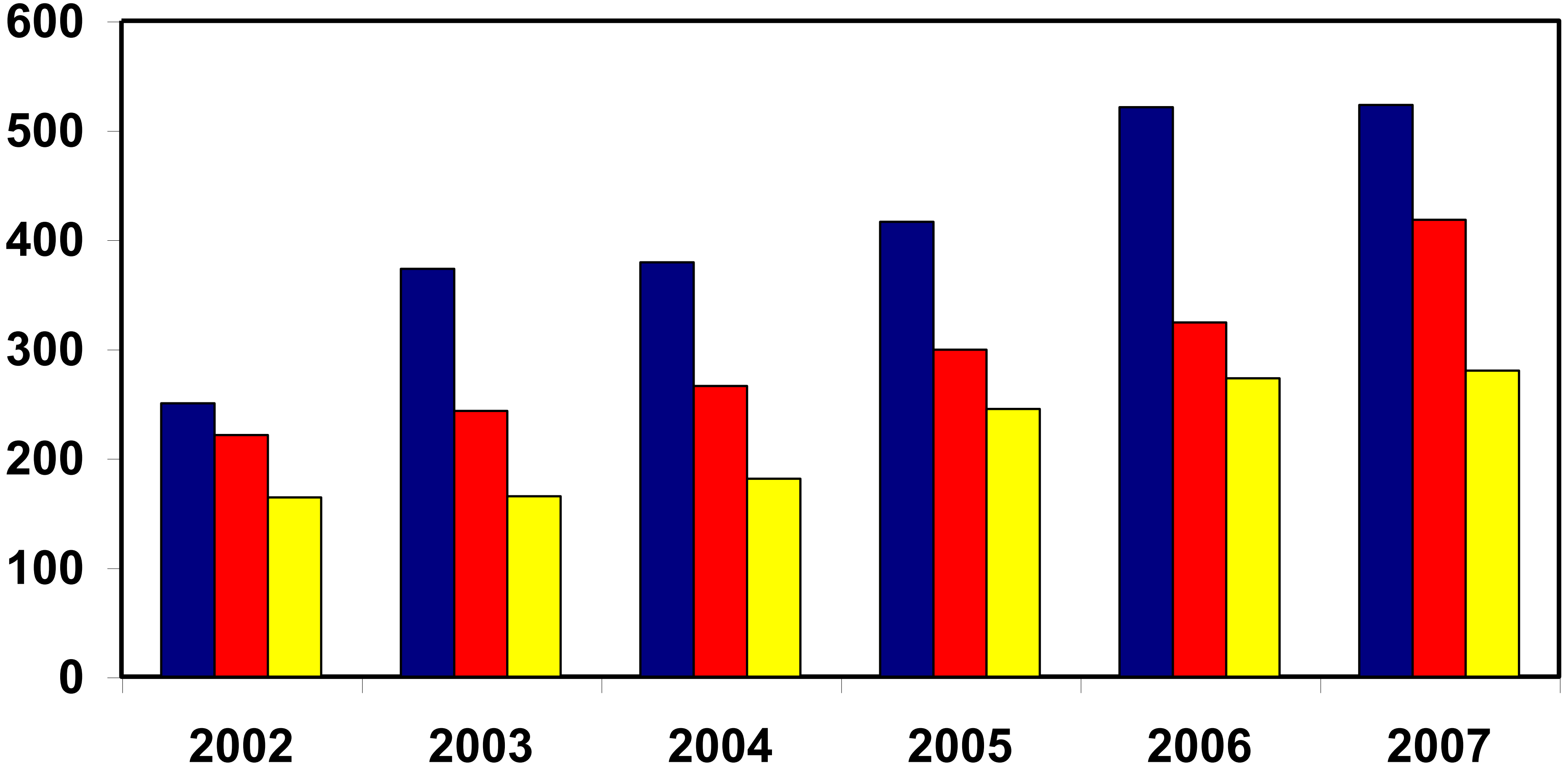
# Percent Change in Rail Rates for Selected Cities from Omaha or Chicago, June 2003 is Base



# Average US Farm Prices, April each Year ($/ton)



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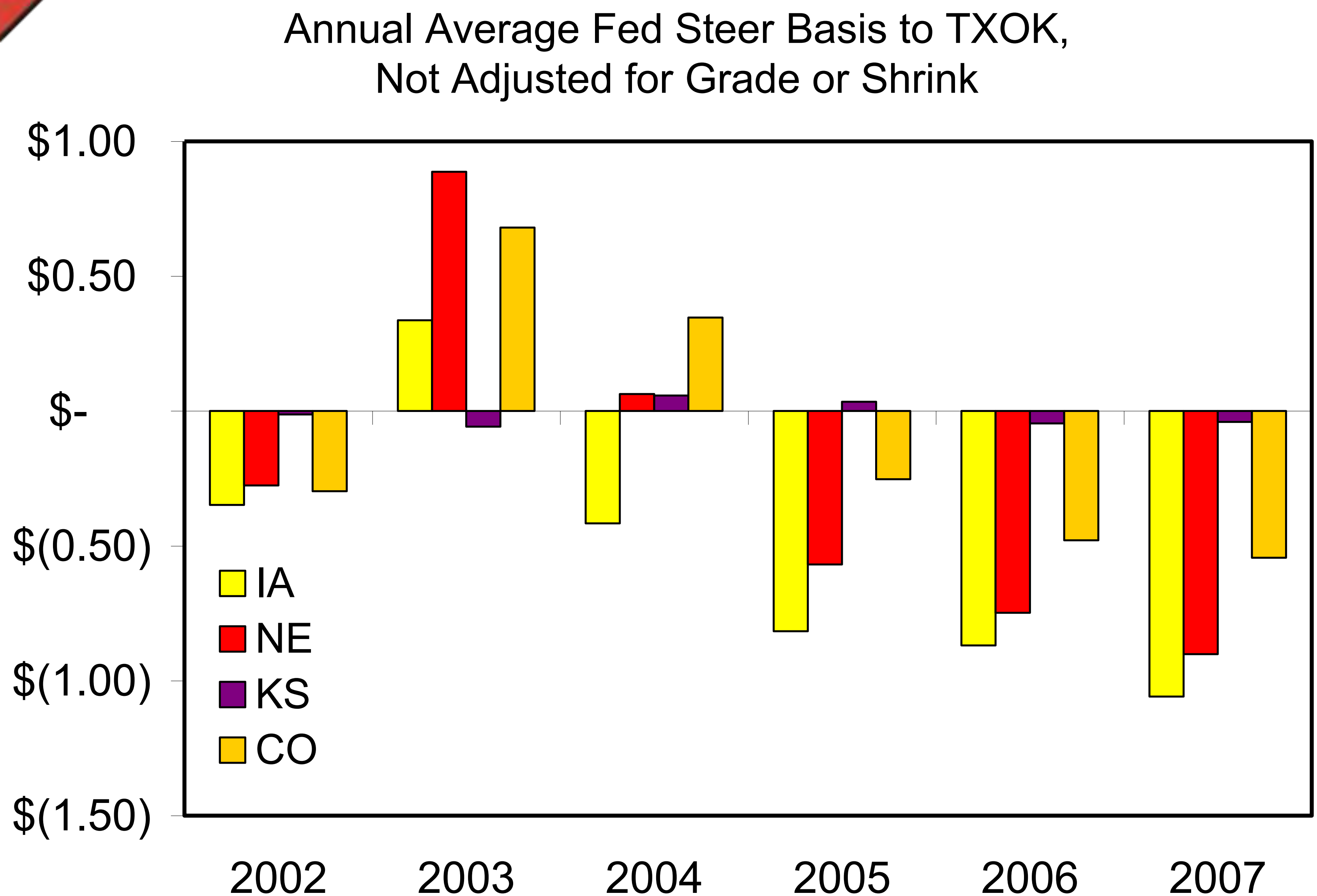

# Emerging Issues

# Swift/JBS Purchases

| Rank | Company | | Head/Day | Share |
|---|---|---|---|---|
| 1 | JBS Swift | 20,500 | | |
| | National Beef Packing | 14,000 | | |
| | Smithfield Beef Group | 8,050 | 42,550 | 31.10% |
| 2 | Cargill Meat Solutions | | 29,000 | 21.20% |
| 3 | Tyson Foods | | 28,700 | 21.00% |
| 4 | American Foods Group | | 6,500 | 4.70% |
| 5 | Greater Omaha Packing | | 2,800 | 2.00% |
| 6 | Nebraska Beef | | 2,600 | 1.90% |
| 7-13 | | | 10,100 | 7.38% |
| Smaller | | | 14,605 | 10.67% |
| Total | | | 136,855 | |



**Source: CME DLR**

# Factors to Consider

- Those numbers are total cattle not fed cattle
- The 31% is similar to Smithfield in hogs
- Impact
  - Likely varies with location
  - Retailers have fewer sellers
- Competition title of Farm Bill
  - Ban on packer ownership
  - Restrictions on contracts

# Role of Science in Food

- Consumers have other sources of information
- Trust NGOs more than government or universities
- Asking value-based questions
- We respond with science-based questions

# Changing Consumers

- Changing demographics
  - Aging Boomers eat less meat
  - Wealthy Boomers want more choice
- Brands are the new regulations
  - Different rules for different brands
- Growth of natural, green, organic, local
  - Is mainstream inferior
  - How to document and prove

# 800 Pound Gorilla

- **Lee Scott, president and chief executive officer of Wal-Mart Stores Inc.'s**

*"In the next three years we would like to build a very different system. We believe that there should be one framework of social and environmental standards for all major global retailers. <u>And there should be one third-party auditing system for everyone.</u> This will ensure improvement will occur across the board on a level playing field."*

(MEATPOULTRY.com, January 30, 2008)
by Keith Nunes

# Take Home

**The world in which you operate has fundamentally changed.**

**How have you changed your business???**

# *Thank you!*

Any Questions?

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