



## New Realities of Conducting Business in the Stocker Segment

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## Sources of Risk in Agriculture

1. Price risk
2. Production risk
3. Input cost risk
4. Casualty loss risk
5. Legal, regulatory, and policy risk
6. Personal well-being/health risk
7. Risk of dependent/partner business changes

Source: Modified from Miller et al., "Risk Management for Farmers", Purdue University, Sept 2004.

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Manhattan, KS



## Market Price Risk

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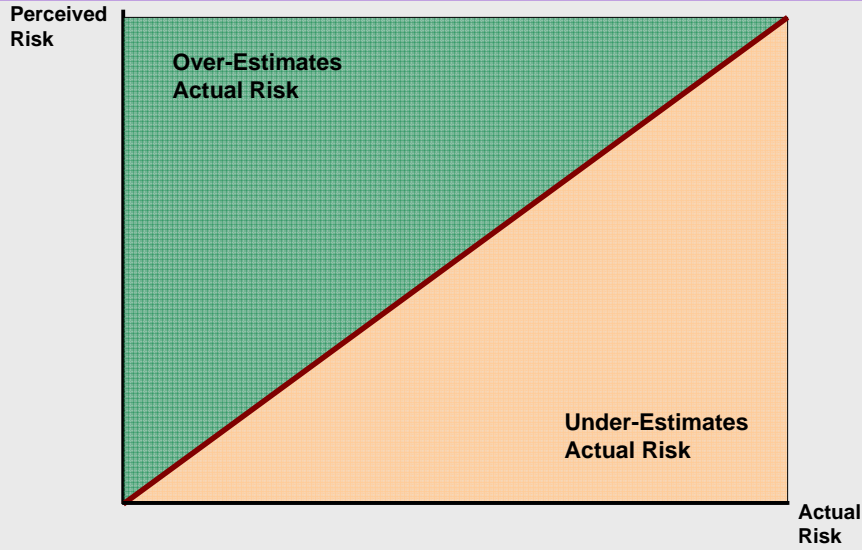
## Two Manager Attributes Affect Risk Management Strategy Employed

1. RISK Perception
  2. RISK Attitude or Aversion Level
- Together determine how manager deals with risk

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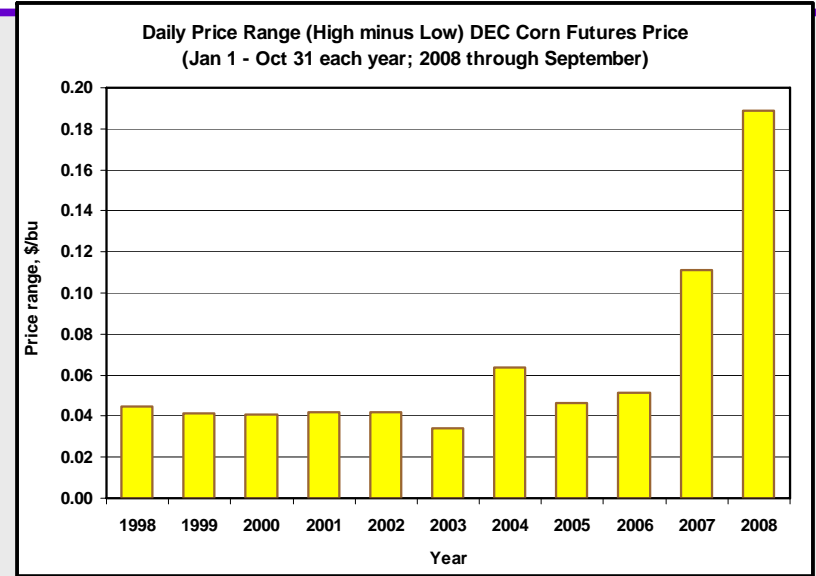
Perceived versus actual risk...



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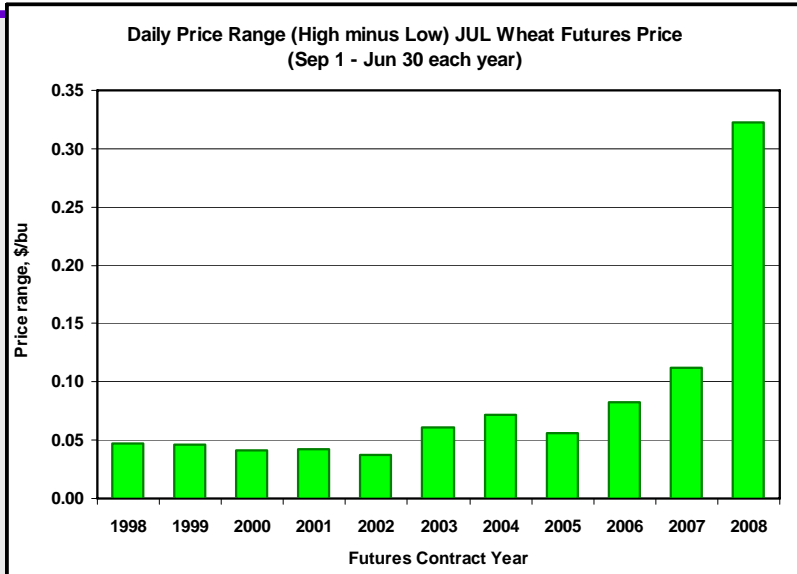
Daily corn price moves have increased significantly ...



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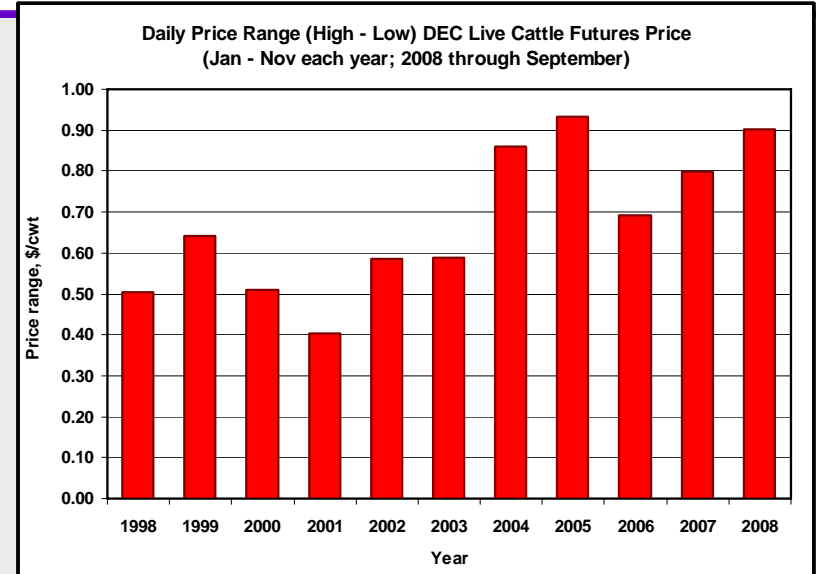
Daily wheat price moves have increased significantly ...



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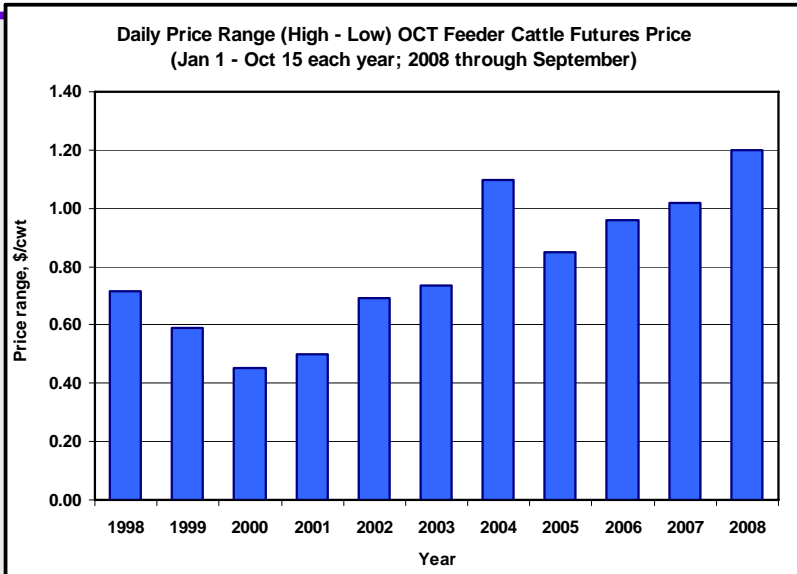
Daily fed cattle price fluctuations are high, but nothing we haven't seen them before ...



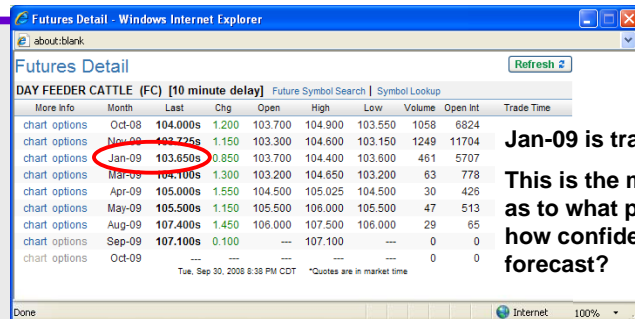
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Little more price variability in feeder cattle market than fed cattle market ...



CME feeder cattle futures prices (9-30-08) ...



Jan-09 is trading at \$103.65  
This is the market's forecast as to what prices will be, but how confident are we in this forecast?

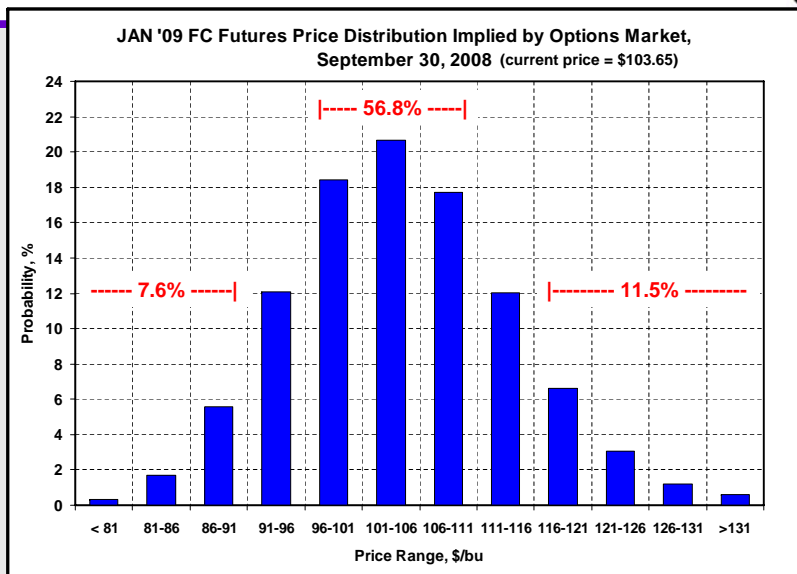
What is the probability price will be between \$101 and \$106 (+/- ~\$2.5) in Jan?

What is the probability price will be between \$96 and \$111 (+/- ~\$7.5) in Jan?

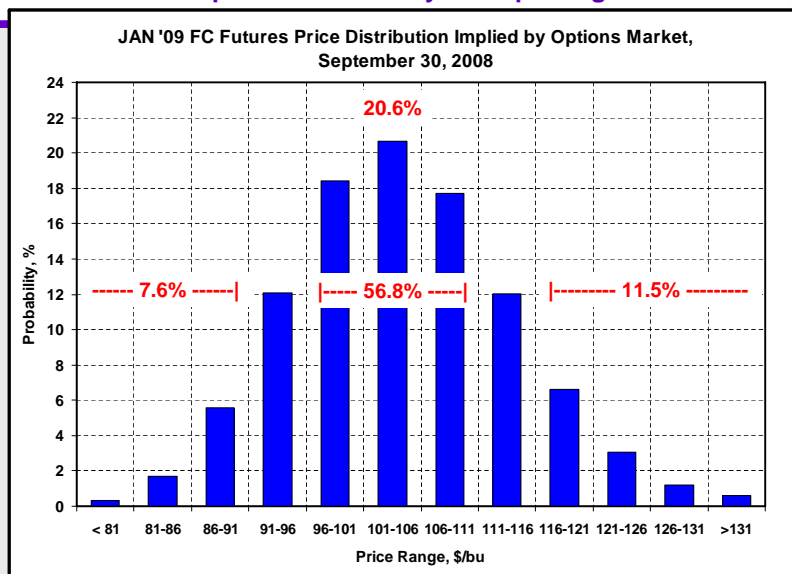
What is the probability price will be less than \$91 (down ~\$12.5) in Jan?

What is the probability price will be greater than \$116 (up ~\$12.5) in Jan?

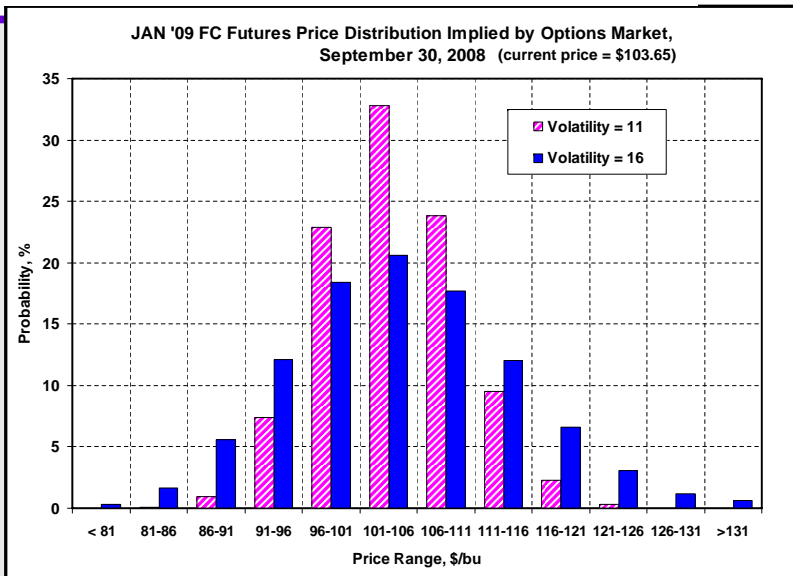
Distribution of market's expectation of prices in Jan...



While \$103.65 might be our best guess, we don't have much confidence that prices will actually end up being \$103.65



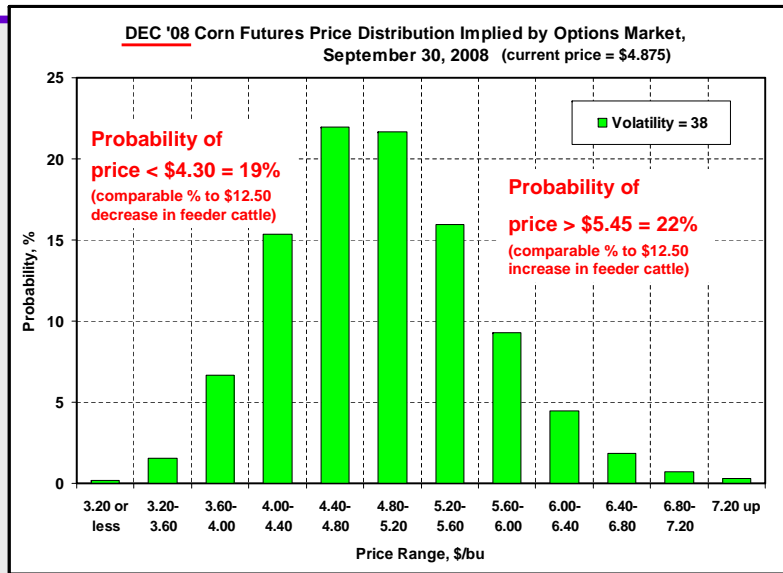
At historical volatility levels, variability still exists, but we would have more confidence in price forecast...



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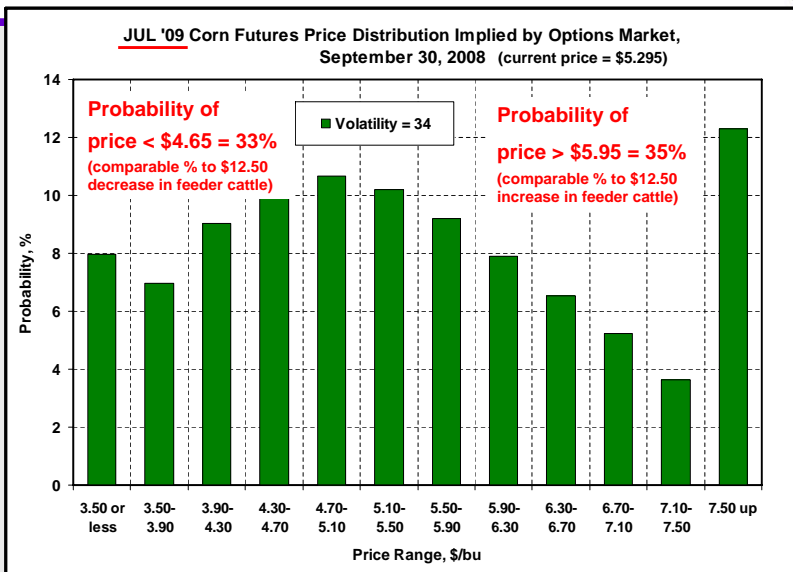
Things are even worse (better?) in the corn market...



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Risk management very far out is tough in this environment!



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Managing price risk...



- Forward contracting locks in futures price and basis, but we need a forecast of basis to evaluate validity of forward contract bids.
- Futures and options can be used to hedge feeder cattle price risk, but basis risk still exists with these tools (is this good or bad?).
- What do we expect basis to be, and how does corn price variability impact basis risk?

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AgManager.info: Fed Cattle Basis - Windows Internet Explorer

http://www.agmanager.info/livestock/marketing/graphics/cattlebasis.asp

AG MANAGER.INFO  
Department of Agricultural Economics

Home / Livestock & Meat / Marketing / Livestock Charts / Fed Cattle Basis

### Livestock & Meat: Marketing

#### Western Kansas Fed Cattle Basis

1100 - 1300 lb. Fed Steer Basis

- February
- April
- June
- August
- October
- December

#### Dodge City, KS Feeder Cattle Basis

500 - 600 lb. Feeder Steer Basis

- January
- March
- April
- May
- August
- September
- October
- November

700 - 800 lb. Feeder Steer Basis

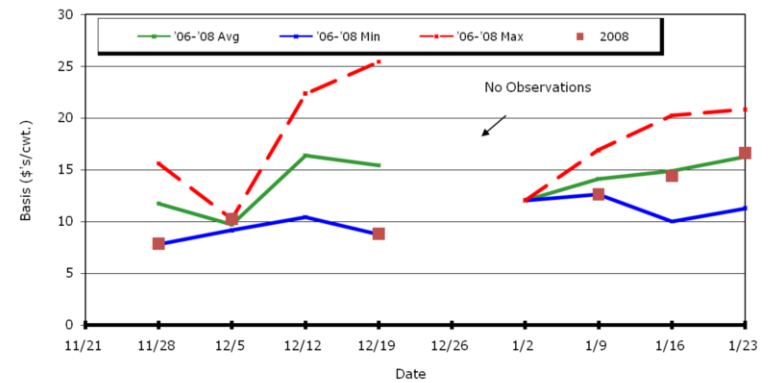
- January
- March
- April
- May

**Fed and feeder cattle basis charts available on [www.agmanager.info](http://www.agmanager.info)**

## What's driving year-to-year variability? (corn price, data sample problems, etc...)



### January CME Feeder Cattle Basis Dodge City 500-600 Lb. Steers



Source: USDA-AMS, CME, & James Mintert, K-State Ag. Economics  
Basis = Cash Price - Nearby Futures Price

KSU Dept. of Ag Econ  
[www.agmanager.info](http://www.agmanager.info)

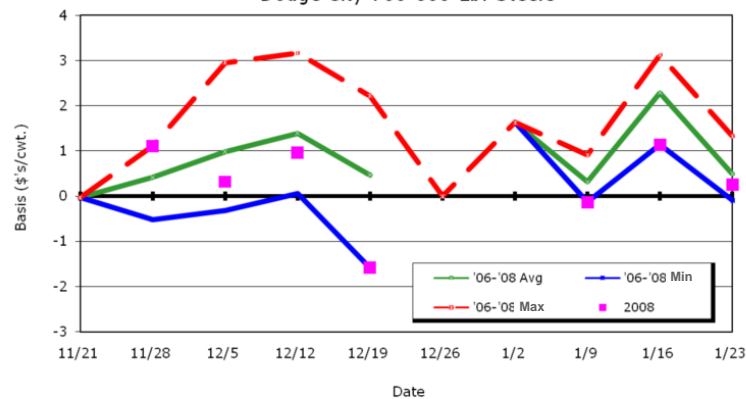
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## Less variability for heavier weight feeders...



### January CME Feeder Cattle Basis Dodge City 700-800 Lb. Steers



Source: USDA-AMS, CME, & James Mintert, K-State Ag. Economics  
Basis = Cash Price - Nearby Futures Price

KSU Dept. of Ag Econ  
[www.agmanager.info](http://www.agmanager.info)

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Beef Basis - Home - Windows Internet Explorer

http://www.beefbasis.com/Home/tabid/53/Default.aspx

BEEFBASIS.COM  
Decision Support for America's Beef Producers

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Welcome to BeefBasis

Credits

BeefBasis.Com - Decision Support for America's Beef Producers

Data for BeefBasis.com provided by USDA's Agricultural Marketing Service (AMS).

Basis, defined simply as the difference between the local cash markets and futures contract prices, can be complex and can vary dramatically between weight classes and market locations from year to year. Understanding the risk related to basis uncertainty, or "basis risk," is essential to making effective use of price risk management tools such as Chicago Mercantile Exchange (CME) futures and options and forward contracts.

The BeefBasis website was developed by Custom Ag Solutions, Inc. (CAS) and Kansas State University (K-State) in partnership with the USDA's Risk Management Agency (RMA).

**BeefBasis gives you relevant information and analytics you need to evaluate marketing decisions and manage your price risk.**

Events

We have scheduled (or are working to schedule) training sessions in the following states:

Missouri 12/6 - 12/7/07  
Montana 12/14 - 12/15/07

Paper on BeefBasis presented at the 2008 annual meeting of the Western Agricultural Economics Association in Bus Skv, MT on June 27, 2008. Download

Done

**BeefBasis.com – web-based tool for forecasting basis and examining historical prices and basis.**

Beef Basis > Forecasting Tools > Basis and Price Forecast

http://www.beefbasis.com/ForecastingTools/BasisandPriceForecast?tabid(503)/Default.aspx

Department of Agricultural Economics & AgManagement

**BEEFBASIS.COM**  
Decision Support for America's Beef Producers

Home Forecasting Tools Market Data Contact About BeefBasis

### Feeder Cattle Basis Forecast

Hedge Analysis

State: Kansas Location: Farmers & Ranchers Livestock Comm Expected Sale Date: 1/13/2009

Sex: Steer Frame: Lg & Med/Lg Grade: 1

Weight: 620 lbs/head Head: 50

Feeder Cattle Futures Price: 103.65 \$/cwt Live Cattle Futures Price: 100.85 \$/cwt Corn Futures Price: 5.07 \$/bu

Reference Contract: Jan 2009 Transaction Date: Sep 30, 2008  
Reference Contract: Apr 2009 Transaction Date: Sep 30, 2008  
Reference Contract: Mar 2009 Transaction Date: Sep 30, 2008

January 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

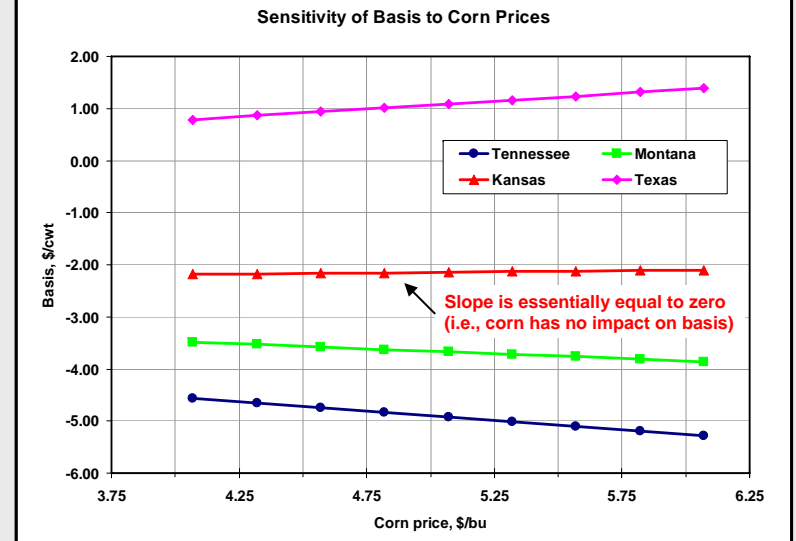
BeefBasis.com

- Explicitly considers corn price
- Can consider any weight for steers and heifers between 300-900 lbs
- Accounts for lot size
- 15 states with multiple locations per state

BEEFBASIS.COM

Impact of corn price on predicted basis for 750 lb steer sold 1/21/09

BEEF STOCKER



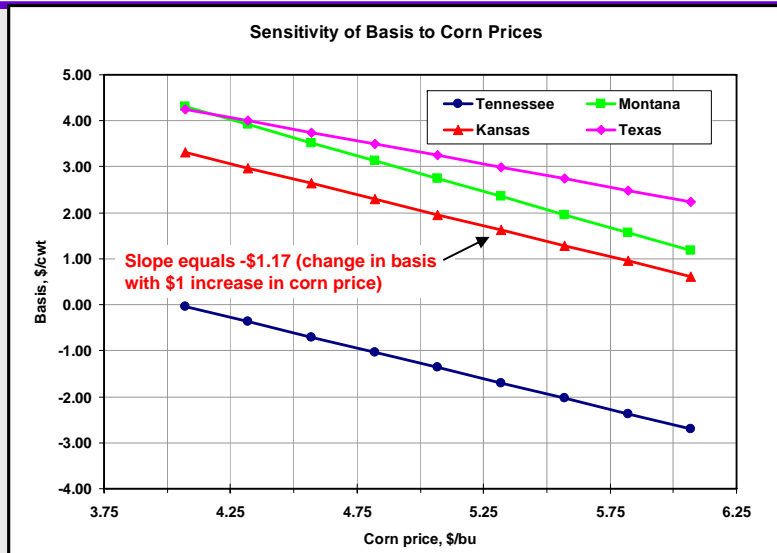
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BEEFBASIS.COM

Impact of corn price on predicted basis for 650 lb steer sold 1/21/09

BEEF STOCKER



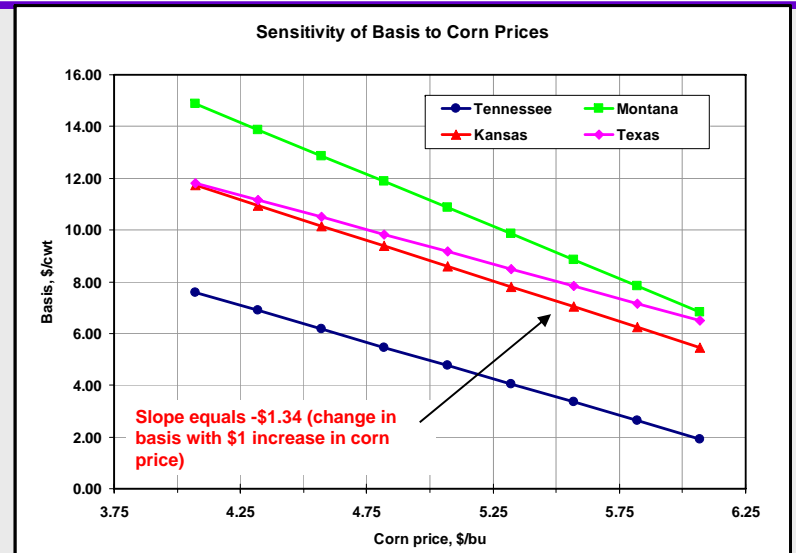
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BEEFBASIS.COM

Impact of corn price on predicted basis for 550 lb steer sold 1/21/09

BEEF STOCKER



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## Managing price risk...

- Corn price variability will impact prices of all weights of feeder cattle, but it has a larger impact on lighter weight cattle
- Ability to manage price risk associated with corn price variability varies depending on calf weight

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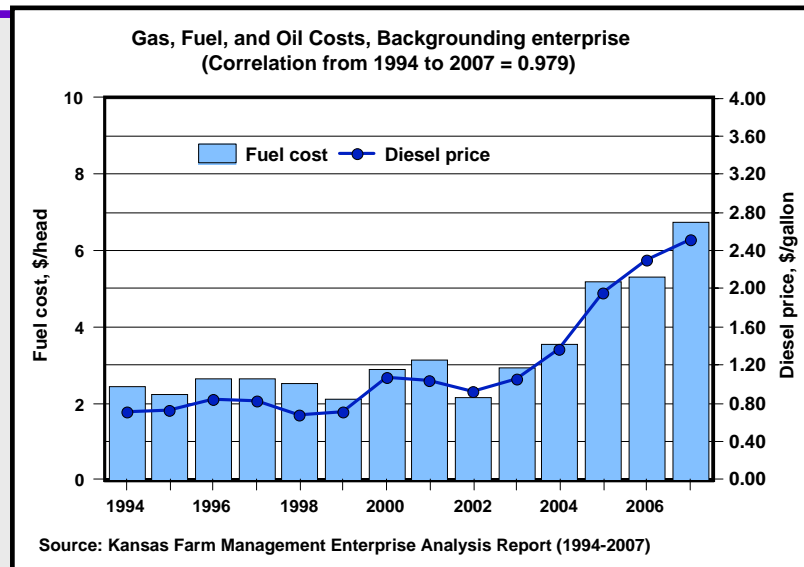
## Production Costs

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## Fuel costs/head and price/gal are highly correlated...

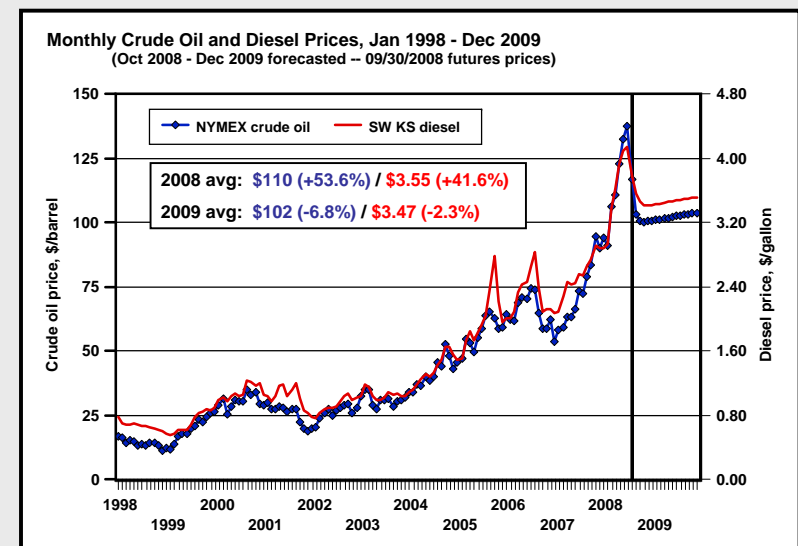


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## Oil and diesel fuel prices are softening, but will still be high in 2009 by historical standards...

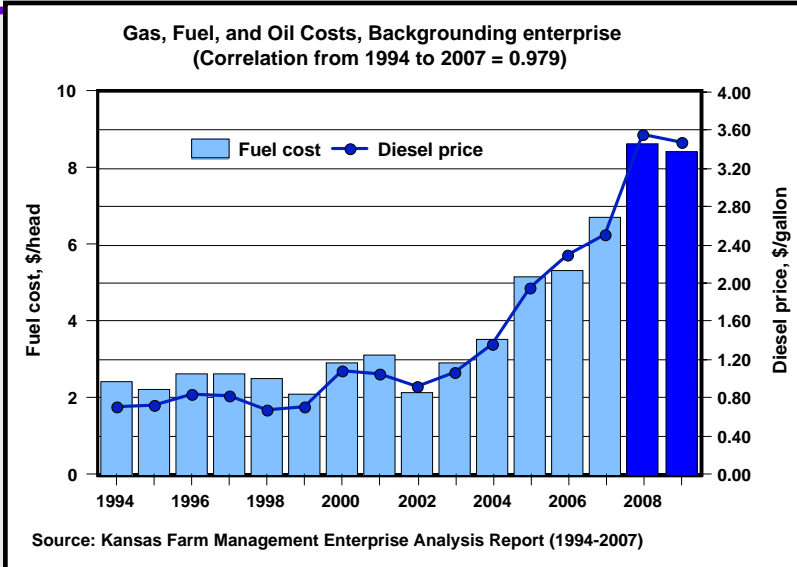


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### High fuel prices increase backgrounding costs...

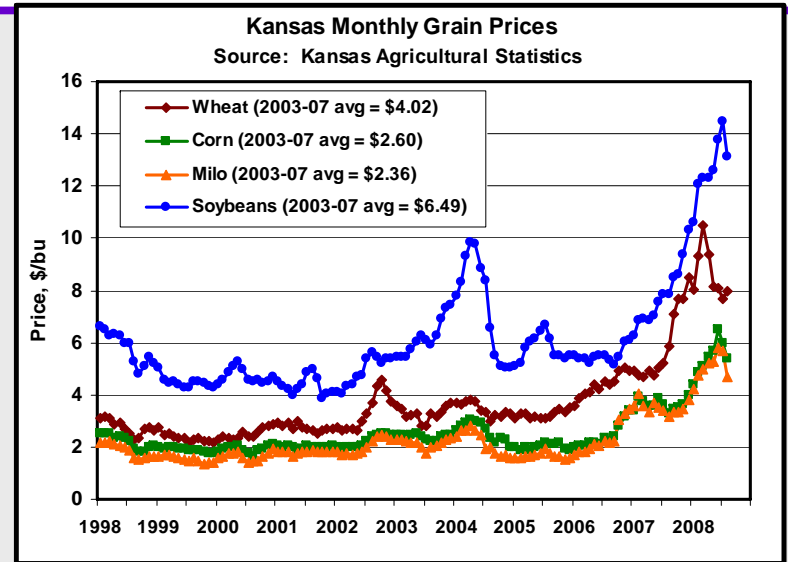
(Oct 2008 – Dec 2008 diesel price forecasts based on 0/30/08 crude oil futures prices)



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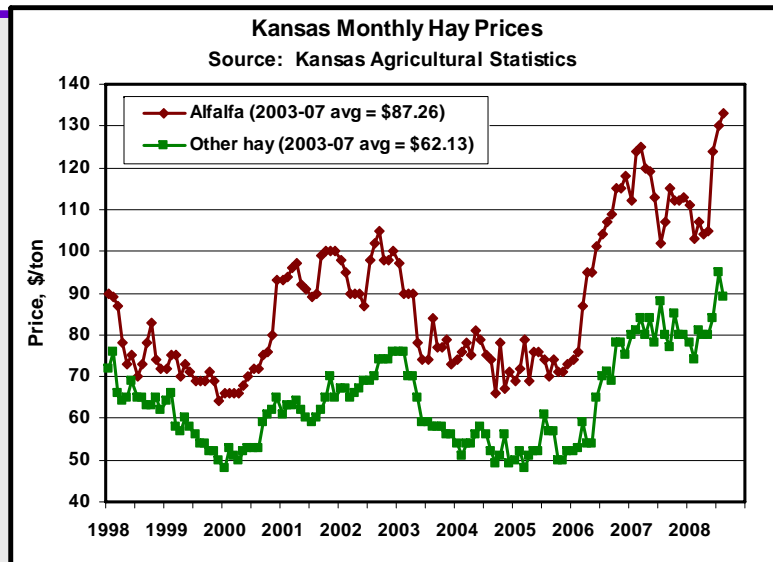
### Grain prices have softened considerably, but still remain high by historical standards...



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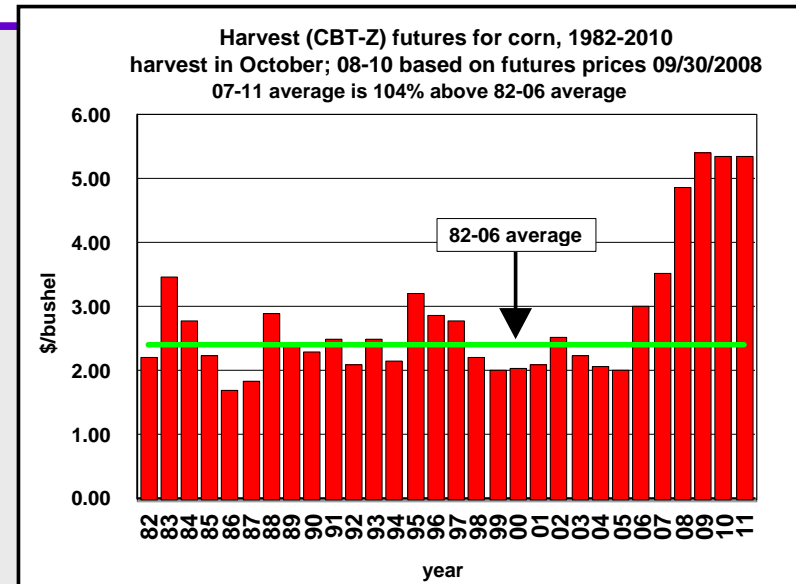
### Strength in crop markets impacts hay prices...



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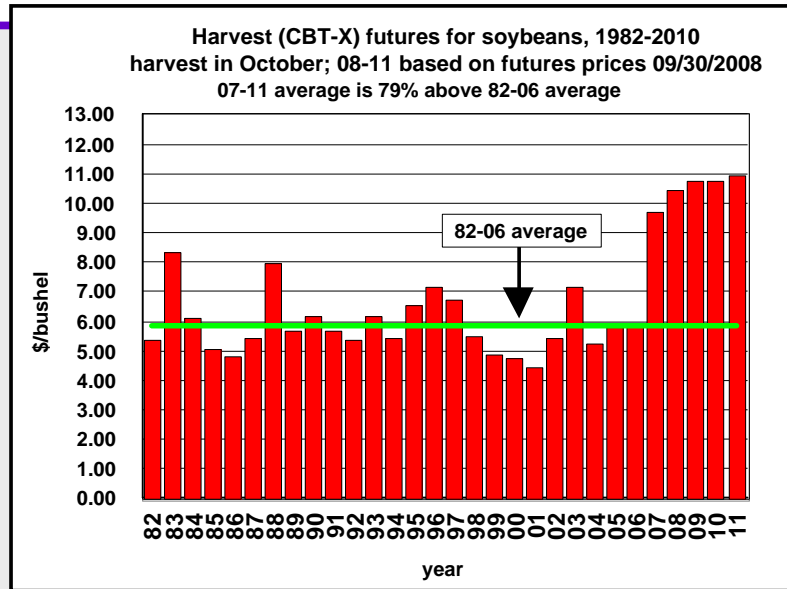
### Markets look to remain high in the near future...



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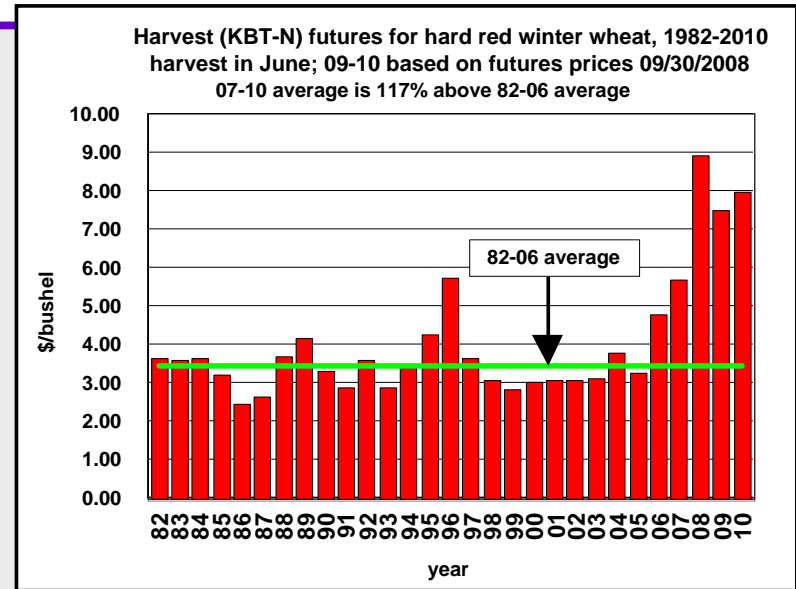
Markets look to remain high in the near future...



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Markets look to remain high in the near future...



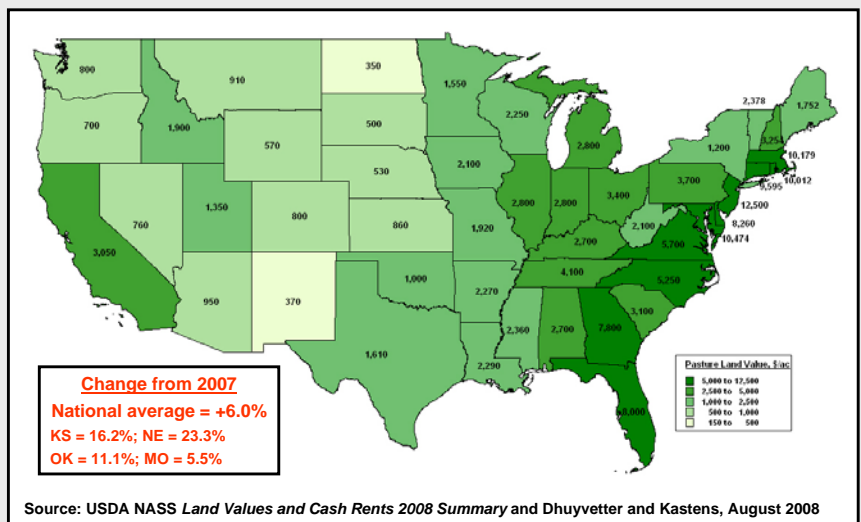
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Pasture rental rates

Pasture Land Average Value per Acre  
January 1, 2008



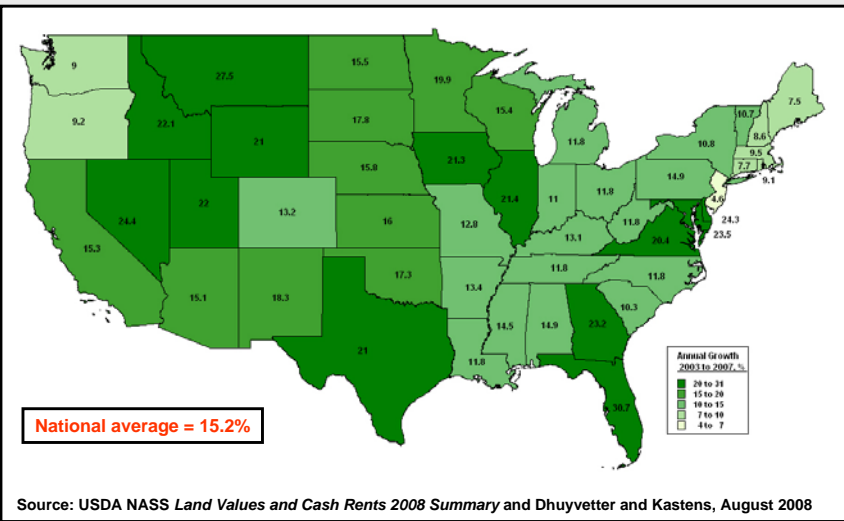
Source: USDA NASS Land Values and Cash Rents 2008 Summary and Dhuyvetter and Kastens, August 2008

\* Corresponding changes in crop land values were US=10.4%; KS=15.7%; NE=20.1%; OK=13.4%; and MO=8.6%.

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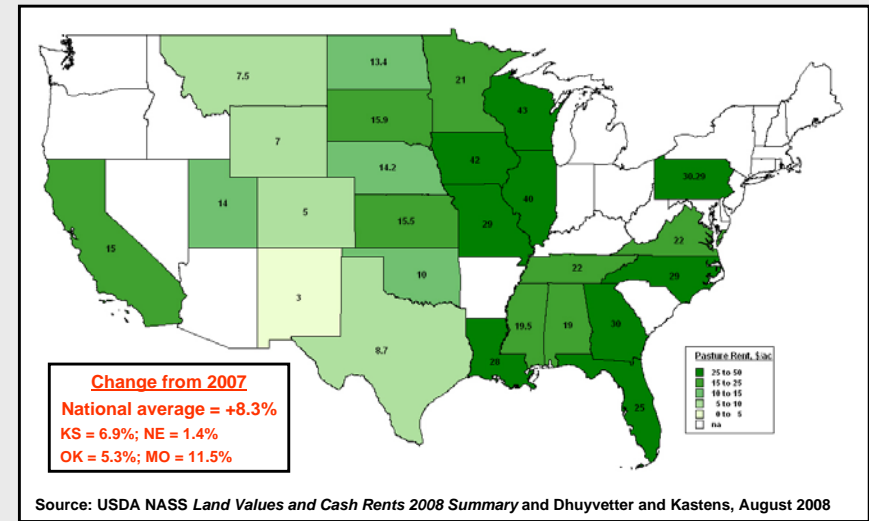
## Pasture Land Average Annual Growth Rate Jan 1, 2003 to Jan 1, 2008, percent (geo mean)



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## Pasture Land Average Rent per Acre 2008

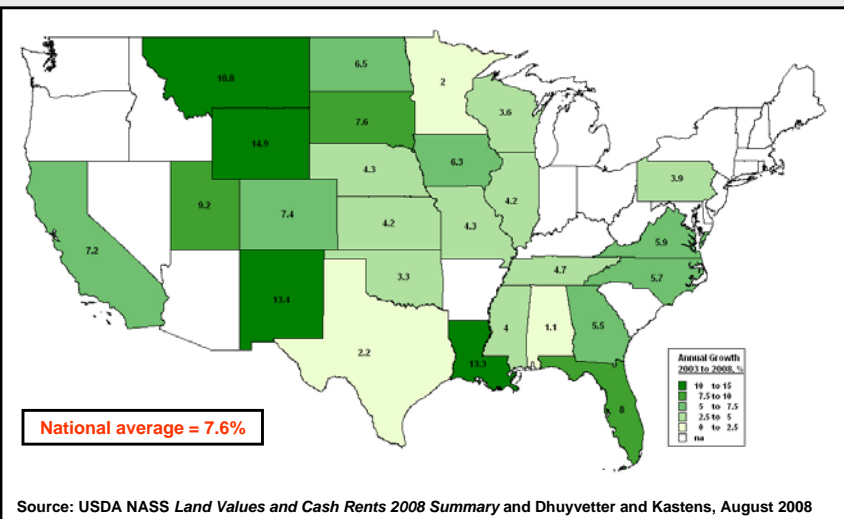


\* Corresponding changes in crop land rents were US=12.9%; KS=9.8%; NE=20.3%; OK=7.4%; and MO=7.6%.

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## Pasture Rent Average Annual Growth Rate Jan 1, 2003 to Jan 1, 2008, percent (geo mean)



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## Pasture values versus rents...



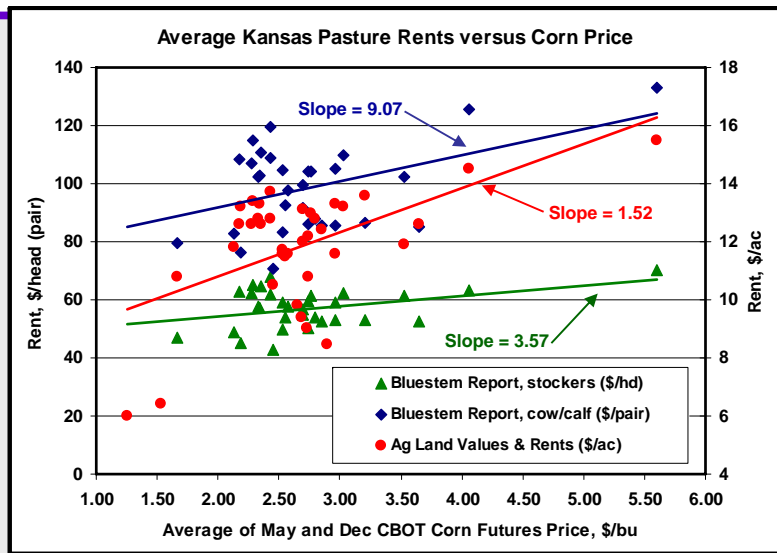
- Pasture land values have been increasing at faster rates than pasture rents
- Buying pasture ties up a lot of equity that is not generating a cash return unless some other income stream exists (e.g., lease hunting)
- Is this about to change --- are rents going to start increasing at faster rates?

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Historical relationship between rent and corn price has been weak, this will likely will change going forward...



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Beef budgets used to estimate feed costs...



<p>Farm Management Guide MF-1009</p> <p><b>Winter Wheat Grazing</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>	<p>Farm Management Guide MF-600</p> <p><b>Drylot Backgrounding of Beef</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>
<p>Farm Management Guide MF-1007</p> <p><b>Summer Grazing of Steers in Western Kansas</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>	<p>Farm Management Guide MF-592</p> <p><b>Finishing Beef</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>
<p>Farm Management Guide MF-1008</p> <p><b>Summer Grazing of Steers in Eastern Kansas</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>	<p>Farm Management Guide MF-593</p> <p><b>Drylot Backgrounding and Finishing Beef</b></p> <p>Department of Agricultural Economics — www.agmanager247.com</p> <p>KANSAS STATE UNIVERSITY</p> <p>Kansas State University Agricultural Experiment Station and Cooperative Extension Service</p>

Budgets were simply used to calculate feed cost of gain and how it is impacted under various price scenarios to examine relative changes...

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Budget feed price assumptions...



Feed prices	Unit	2003-07 FM guides	2008 FM guides	chg from 03-07, %
Corn	\$/bu	\$2.67	\$3.85	44.2%
Grain sorghum	\$/bu	\$2.34	\$3.55	51.5%
Supplement	\$/ton	\$211.62	\$281.42	33.0%
Sorghum silage	\$/ton	\$17.09	\$24.64	44.2%
Alfalfa	\$/ton	\$83.47	\$111.33	33.4%
Crop residue	\$/ton	\$10.00	\$16.00	60.0%
Prairie hay	\$/ton	\$58.10	\$80.33	38.3%
Cane hay	\$/ton	\$45.57	\$65.71	44.2%
<b>Pasture charges</b>				
AUM	\$/AUM	\$13.26	\$16.13	21.6%
Western KS -- SL	\$/head	\$52.22	\$65.69	25.8%
Western KS -- IES	\$/head	\$41.53	\$49.67	19.6%
Eastern KS -- SL	\$/head	\$61.44	\$77.28	25.8%
Eastern KS -- IES	\$/head	\$48.86	\$58.44	19.6%
Wheat grazing	\$/cwt/mo	\$1.80	\$3.00	66.7%
Wheat graze-out	\$/cwt/mo	\$2.03	\$3.00	47.8%

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Budget feed price assumptions...



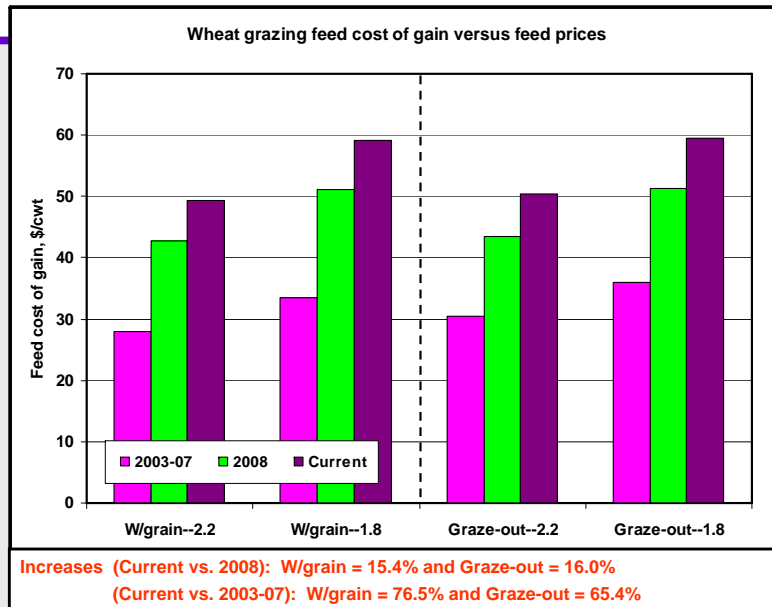
Feed prices	Unit	2003-07 FM guides	2008 FM guides	chg from 03-07, %	Current	chg from 2008, %
Corn	\$/bu	\$2.67	\$3.85	44.2%	\$5.04	30.9%
Grain sorghum	\$/bu	\$2.34	\$3.55	51.5%	\$4.85	36.5%
Supplement	\$/ton	\$211.62	\$281.42	33.0%	\$329.31	17.0%
Sorghum silage	\$/ton	\$17.09	\$24.64	44.2%	\$32.26	30.9%
Alfalfa	\$/ton	\$83.47	\$111.33	33.4%	\$116.59	4.7%
Crop residue	\$/ton	\$10.00	\$16.00	60.0%	\$20.00	25.0%
Prairie hay	\$/ton	\$58.10	\$80.33	38.3%	\$82.64	2.9%
Cane hay	\$/ton	\$45.57	\$65.71	44.2%	\$86.02	30.9%
<b>Pasture charges</b>					<b>Kevin's guess</b>	
AUM	\$/AUM	\$13.26	\$16.13	21.6%	\$18.55	15.0%
Western KS -- SL	\$/head	\$52.22	\$65.69	25.8%	\$75.54	15.0%
Western KS -- IES	\$/head	\$41.53	\$49.67	19.6%	\$57.13	15.0%
Eastern KS -- SL	\$/head	\$61.44	\$77.28	25.8%	\$88.87	15.0%
Eastern KS -- IES	\$/head	\$48.86	\$58.44	19.6%	\$67.21	15.0%
Wheat grazing	\$/cwt/mo	\$1.80	\$3.00	66.7%	\$3.45	15.0%
Wheat graze-out	\$/cwt/mo	\$2.03	\$3.00	47.8%	\$3.45	15.0%

Current prices are based on futures prices as much as possible along with historical relationships between different feedstuffs

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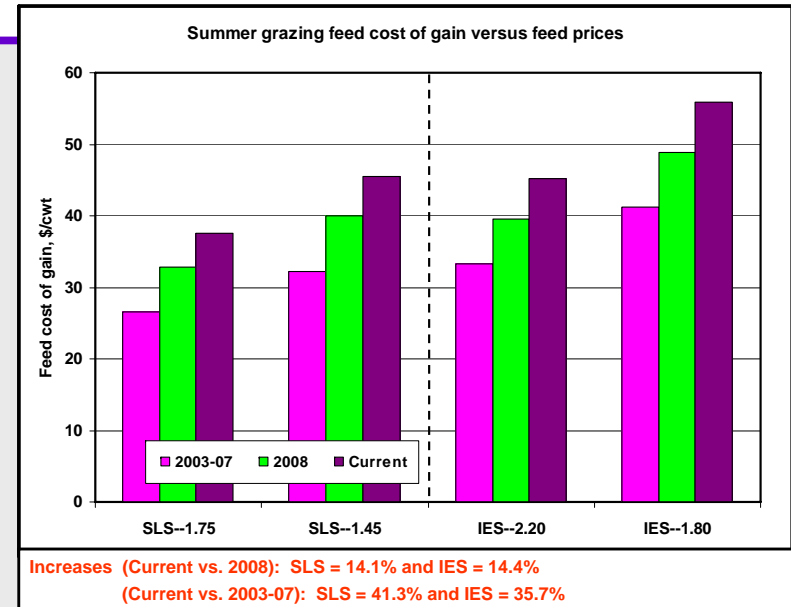
## Wheat grazing enterprises...



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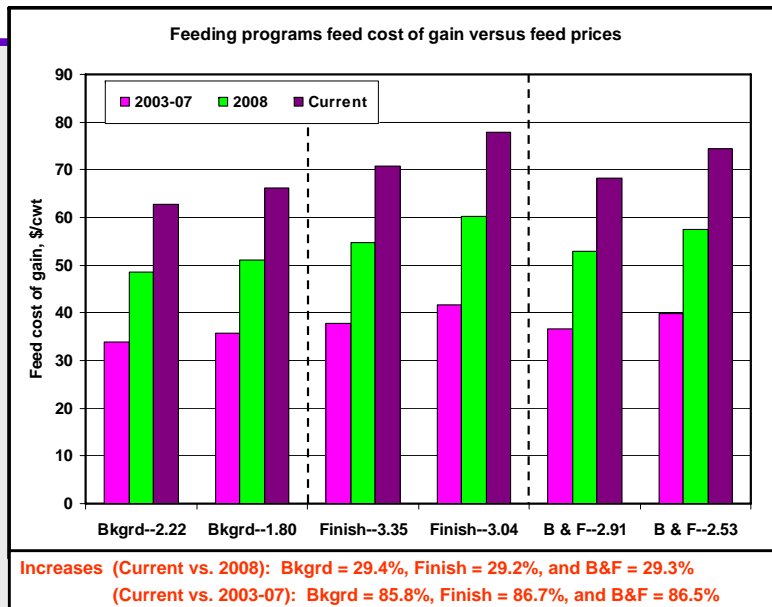
## Summer grazing enterprises...



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## Feeding enterprises...



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## What does all this mean?

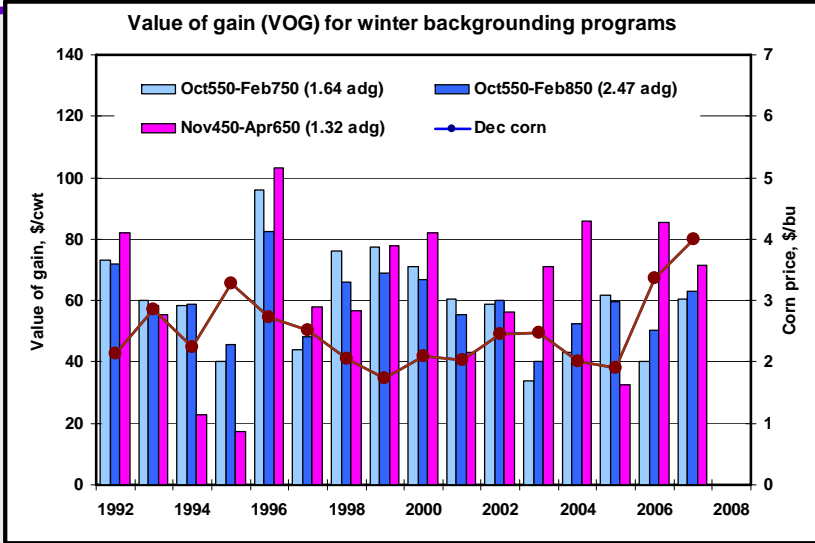


- Feed COG in feeding programs currently over 85% compared to historical time period
- This compares to ~36-41% for grass grazing programs and ~70-80% for wheat grazing (based on +115% assumption)
- What do you do about this?
  - Pay less for cattle (i.e., increase value of gain)

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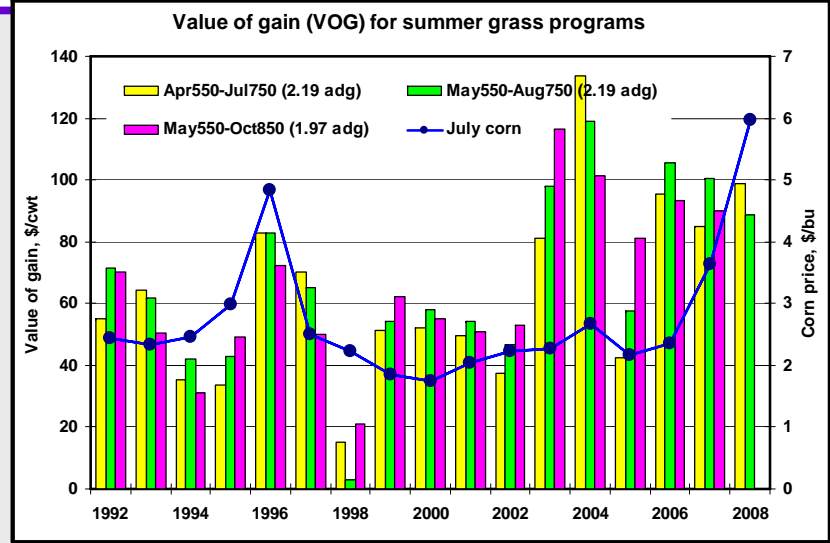
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Historical value of gain (VOG) levels don't support much of an increase in winter backgrounding COG...



1998-2007 averages: Oct550-Feb750 \$58.26; Oct550-Feb850 \$58.29; Nov450-Apr650 \$66.24; Corn \$2.32

Historical summer value of gain (VOG) levels suggest pasture rents might increase...



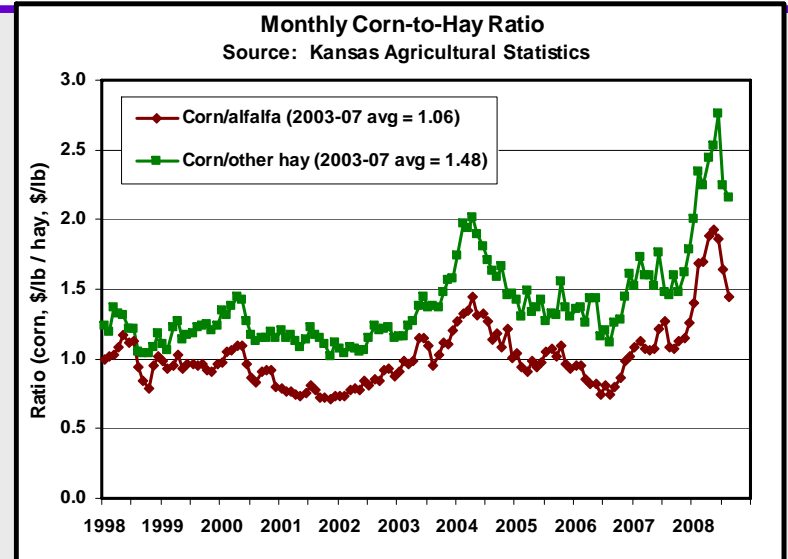
1998-2007 averages: Apr550-Jul750 \$64.31; May550-Aug750 \$69.66; May550-Oct850 \$72.43; Corn \$2.32

What does all this mean?



- Feed COG in feeding programs currently over 85% compared to historical time period
- This compares to ~36-41% for grass grazing programs and ~70-80% for wheat grazing (based on +115% assumption)
- What do you do about this?
  - Pay less for cattle (i.e., increase value of gain)
  - Find ways of putting on gain at lower cost
    - Find alternative feedstuffs
    - Leave cattle on grass longer
    - Background to heavier weights

Market appears to be signaling producers to feed hay rather than silage...



## Find ways of putting on gain at lower cost...



- How high might grazing rates (summer grass and wheat programs) increase?
- Calculated pasture rates such that relationship between future drylot backgrounding cog and grazing programs are similar to historical values
- Increases to 2008 budgeted rates that result in cog for grazing programs, relative to drylot backgrounding, that are proportional to what they were with 2003-07 prices -- summer grass +57% and wheat pasture +30%
- Rents will increase, question is – how much?

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## Summary...



- Market price risk (as well as other risks) has increased significantly in recent years
- No easy answers as to how to best manage that risk (being “better than average” with regard to costs and production/health will be critical)
- High price for corn ripples through to other crops, including hay (currently hay hasn’t quite kept up though)
- Historically, little relationship between corn price and pasture rents. This will likely change...
- Pasture land values have been increasing rapidly in recent years, but rents have not increased at same rate. Things could be different going forward...

2008 K-State Stocker Field Day

Manhattan, KS

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