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## Profit Outlook for 2008

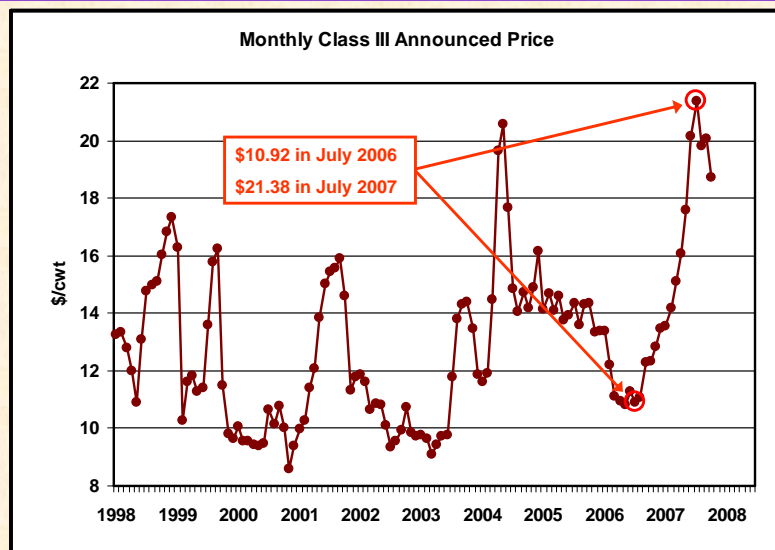
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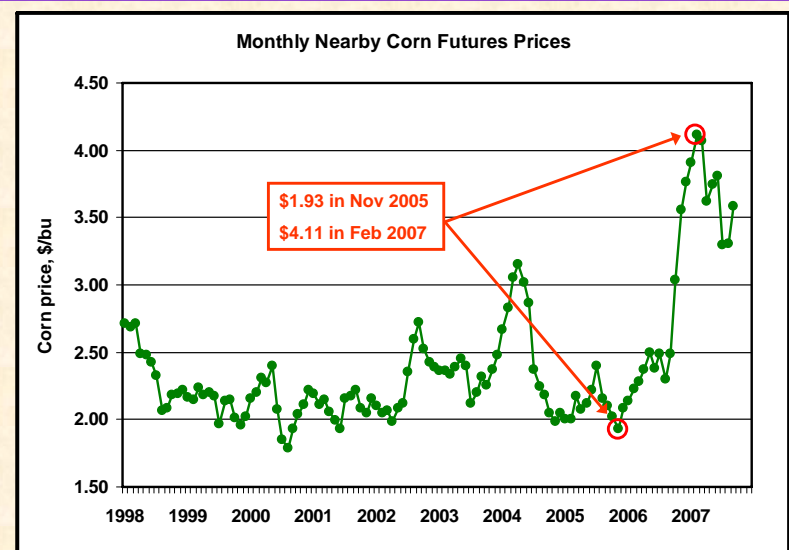
## A look back before looking forward...

- Milk market
- Feed prices
- Ethanol situation

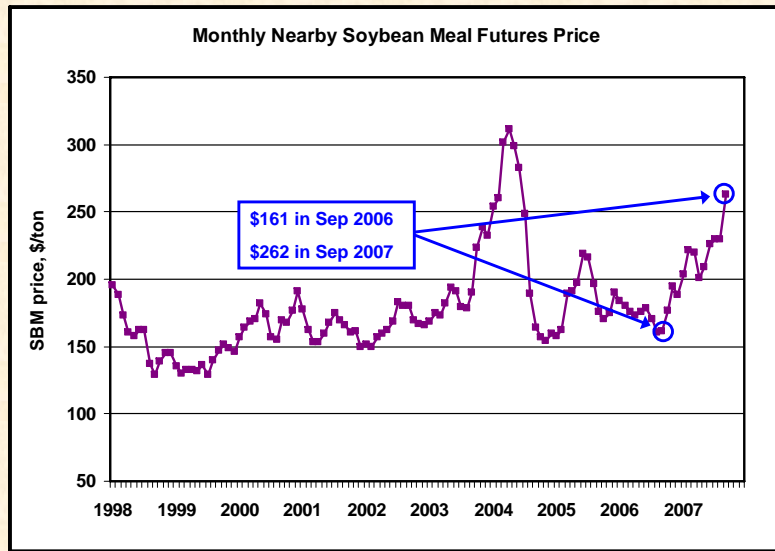
## Milk market has been on a wild ride...



## Corn prices on the same wild ride...

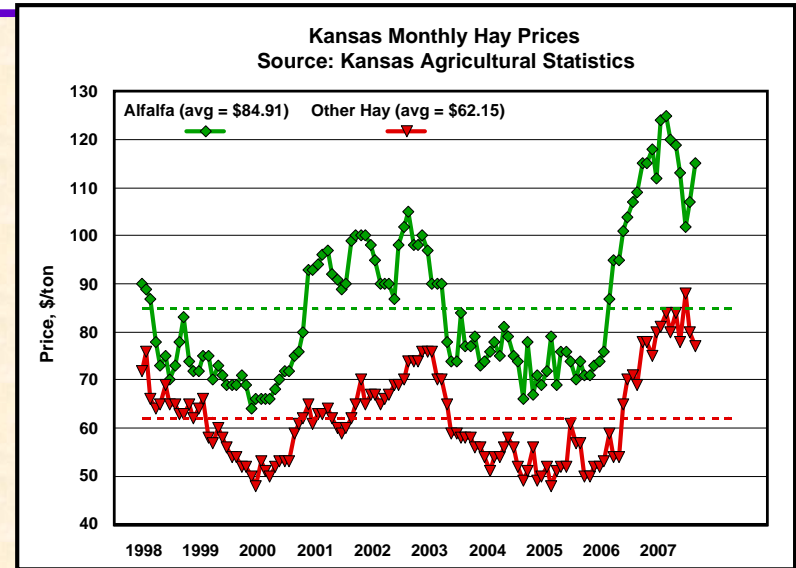


## SBM prices also increased sharply...



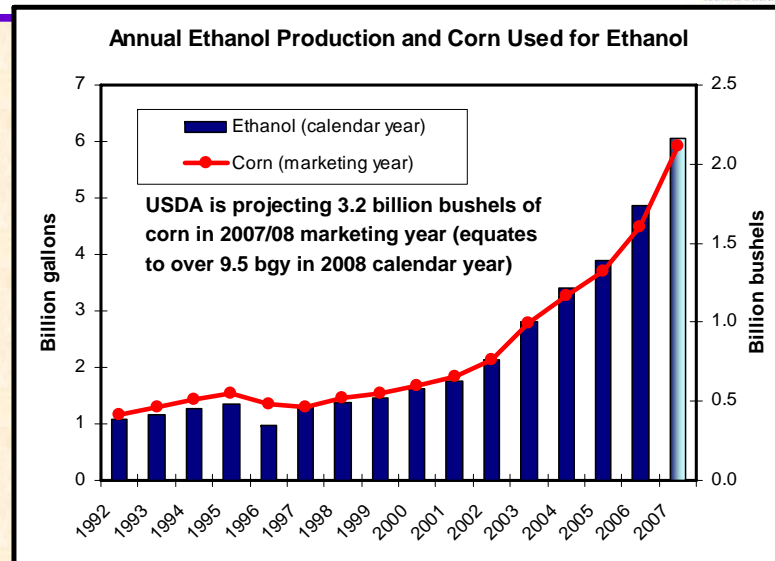
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## It's not just grain prices...



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## Ethanol has increased the demand for corn...

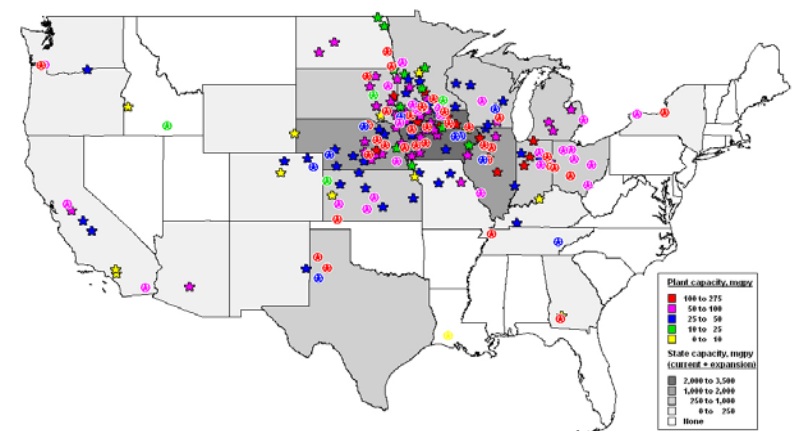


Source: Energy Information Administration (EIA), USDA NASS, and KSU

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## Existing and new ethanol plants

Source: Renewable Fuels Association (RFA)



10/9/07 – 202 plants / capacity of 13.45 bgy

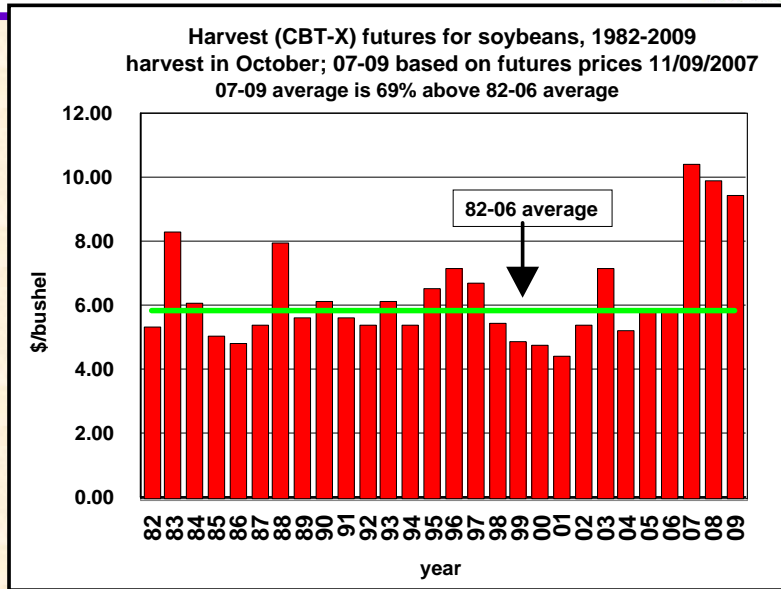
Current ethanol plant capacity: 132 plants, 6.93 billion gallons/year

Expansion and new construction plant capacity, 80 plants, 6.48 billion gallons/year

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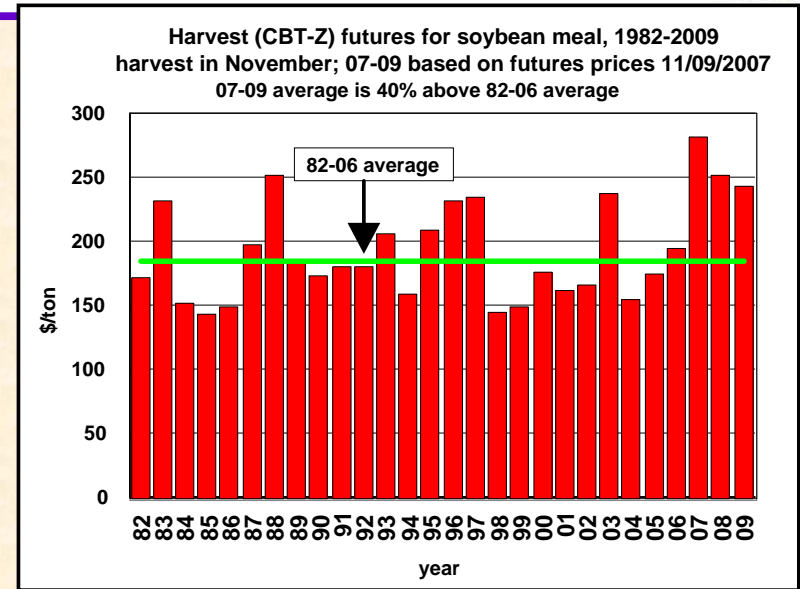


## Feed prices will be high for awhile...



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## Feed prices will be high for awhile...



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## Outlook for 2008 assumptions...

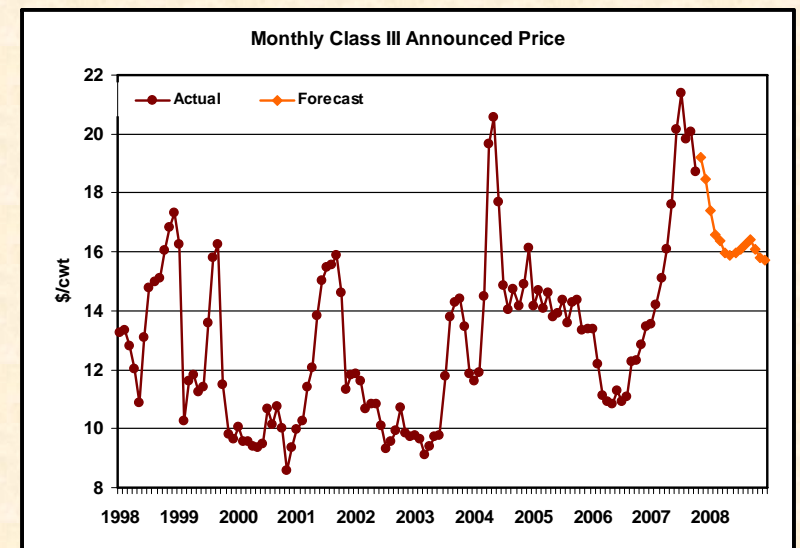


- Milk prices based on futures market adjusted for basis (plus assumed a premium of ~\$1.10/cwt)
- Feed prices based on corn and SBM futures adjusted for basis
- Costs based on KSU budgets and adjusted where appropriate (based on economic costs not cash flow)
- Production based on 2008 projected value of 22,500 (2006 values range considerably for IA,MN,SD)
- Interest rate of 8.25%, 50% equity (total investment in buildings and equipment of \$3,750/lactating cow)

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## Milk prices expected to soften...

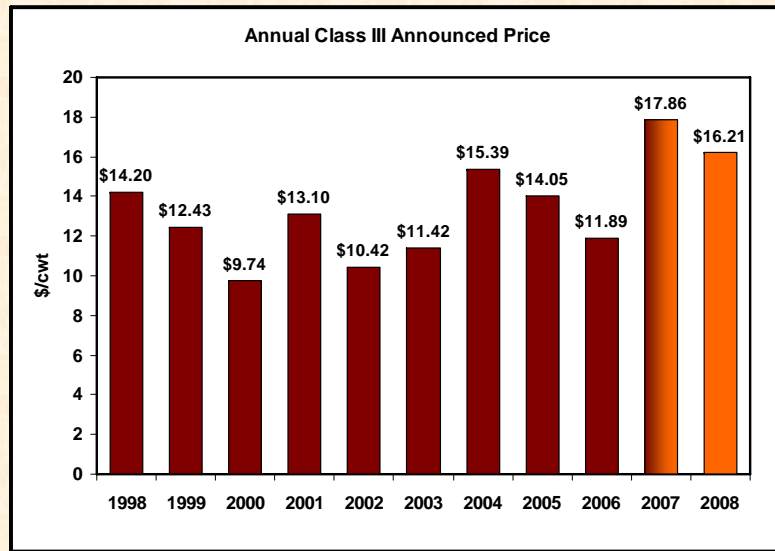
Forecast is 11/09/07 closing futures prices



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## Milk prices still strong historically...

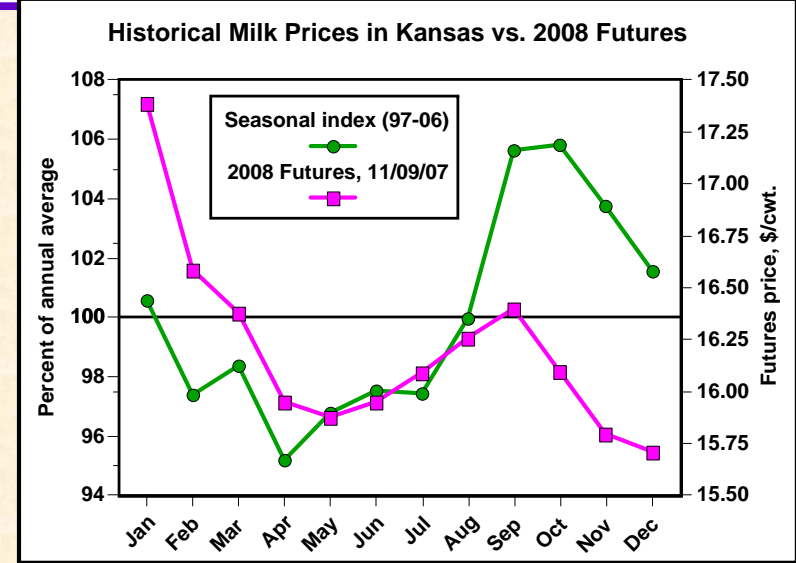
Forecast is 11/09/07 closing futures prices



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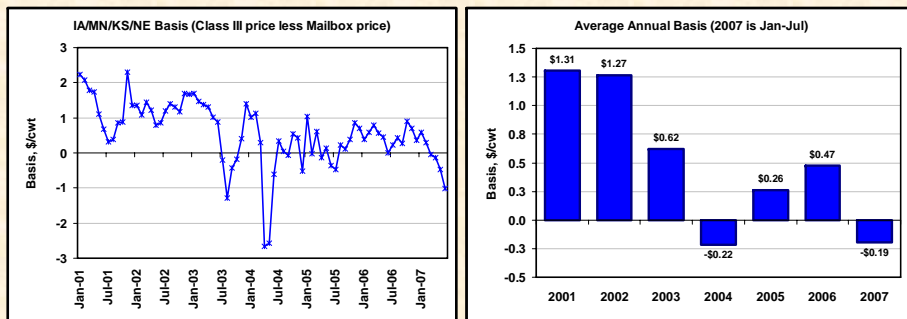
## 2008 price seasonality...

Forecast is 11/09/07 closing futures prices



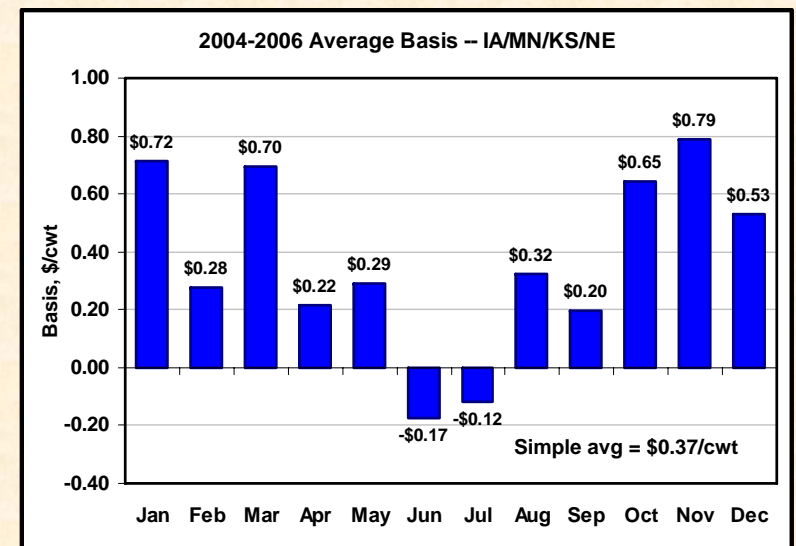
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## Historical basis is highly variable...



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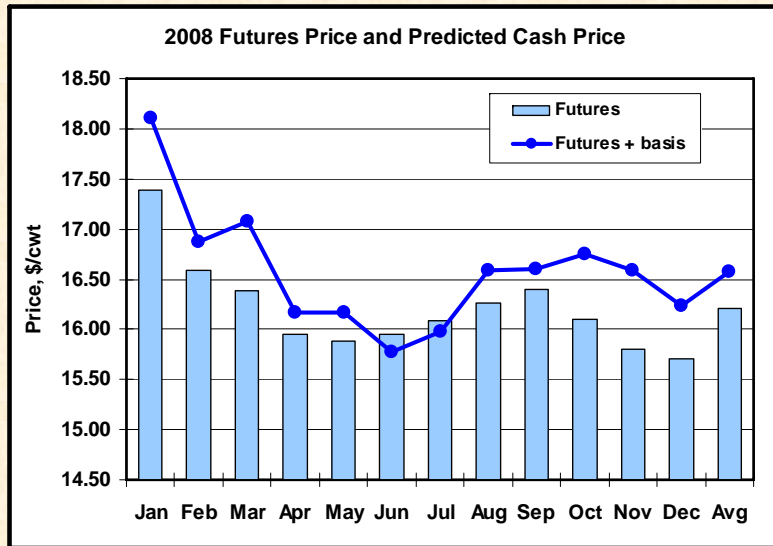
## Basis forecast using 3-year average...



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## Forecasted cash price for NW States...

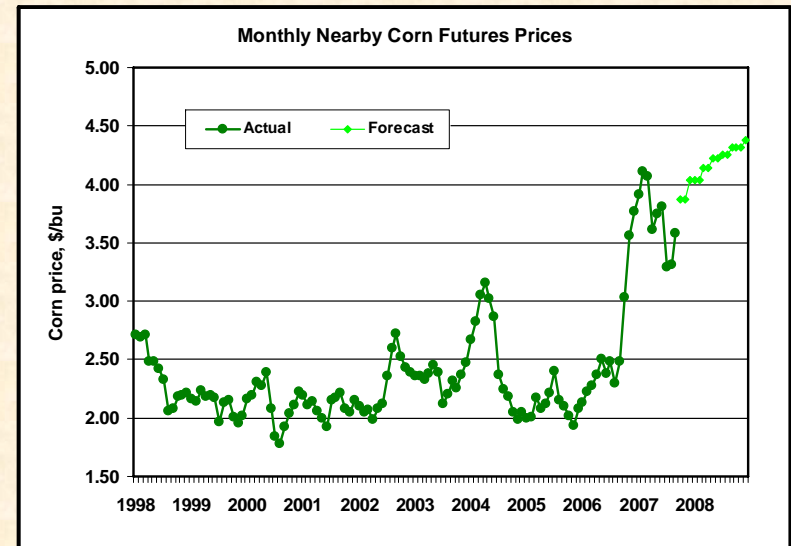
Futures is 11/09/07 closing futures prices



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## Feed prices not backing down...

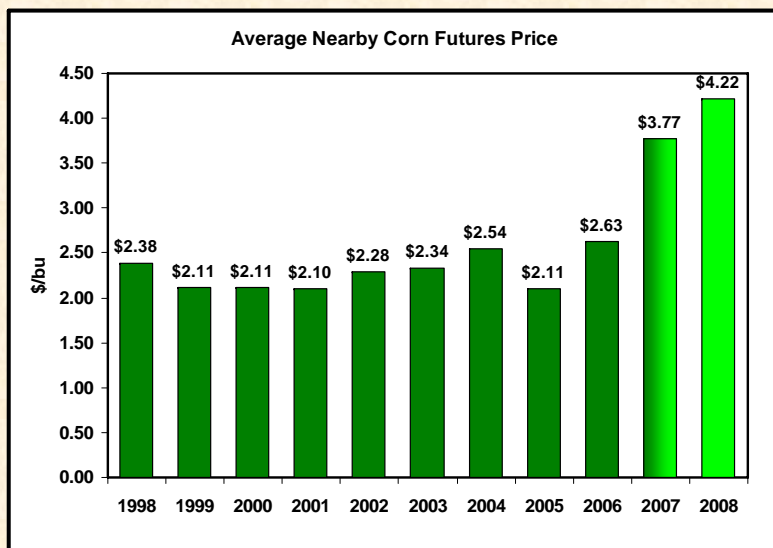
Forecast is 11/09/07 closing futures prices



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## Corn prices expected to strengthen...

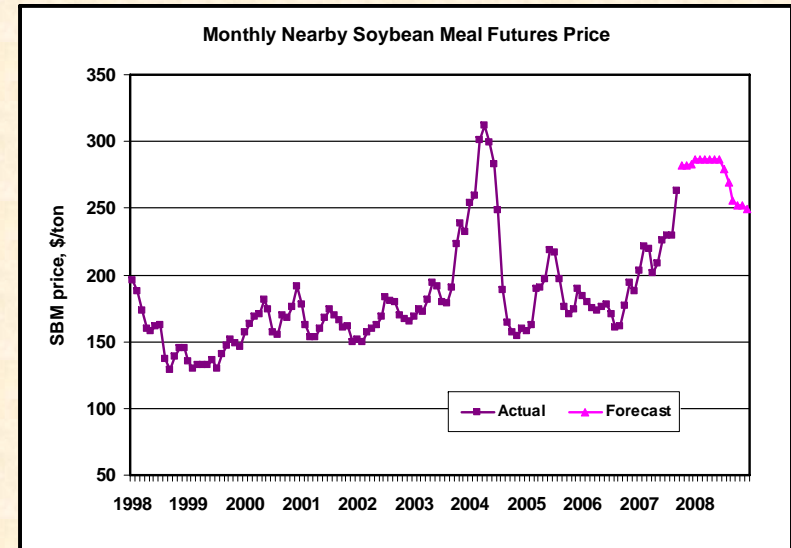
Forecast is 11/09/07 closing futures prices



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## Feed prices not backing down...

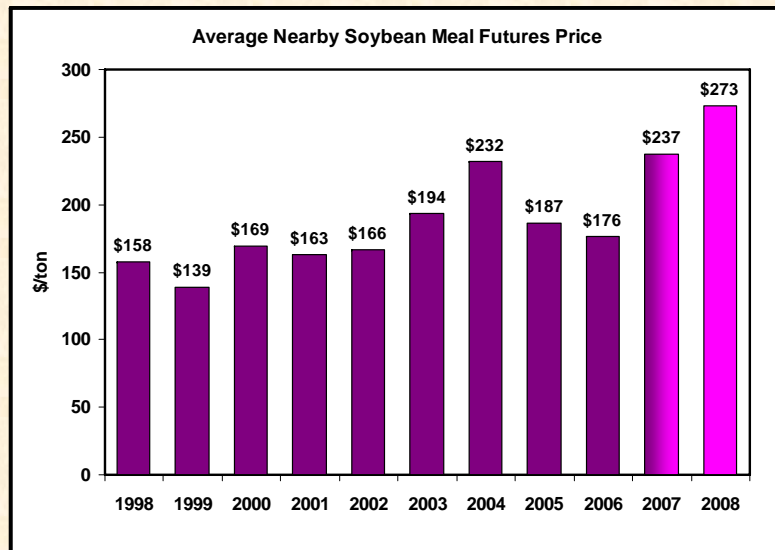
Forecast is 11/09/07 closing futures prices



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## SBM prices expected to strengthen...

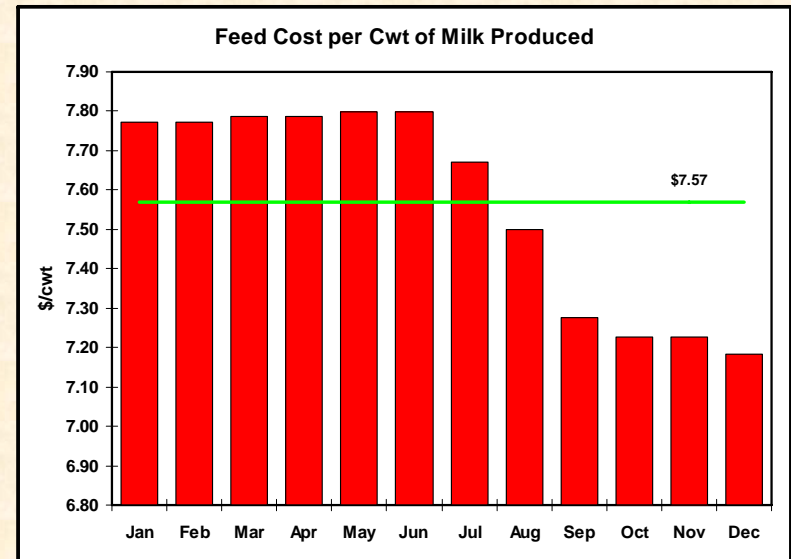
Forecast is 11/09/07 closing futures prices



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## Feed costs per cwt of milk...

Based on 11/09/07 closing futures prices for corn and SBM and adjusting for basis



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## In spite of high feed costs, 2008 has potential...



Projected Costs and Returns for Midwest Dairy in 2008				
PRODUCTION LEVEL	Cashflow	Economic	Cashflow	Economic
Total pounds milk sold/cow/year	22,500	22,500	22,500	22,500
Daily milk production, lbs.	72.1	72.1	72.1	72.1
<b>RETURNS</b>				
	\$ per cow		\$ per cwt	
Milk Sales	\$3,983	\$3,983	\$17.70	\$17.70
Other Income	519	519	\$2.30	\$2.30
<b>A. GROSS RETURNS</b>	<b>\$4,501</b>	<b>\$4,501</b>	<b>\$20.00</b>	<b>\$20.00</b>
<b>VARIABLE COSTS</b>				
Feed	\$1,703	\$1,703	\$7.57	\$7.57
Other operating	805	885	3.58	3.93
Labor	348	348	1.54	1.54
Replacements and breeding charge	755	989	3.36	4.40
Facilities and equipment	221	390	0.98	1.73
<b>TOTAL COSTS</b>	<b>\$3,832</b>	<b>\$4,315</b>	<b>\$17.03</b>	<b>\$19.18</b>
<b>RETURNS OVER TOTAL COSTS</b>	<b>\$669</b>	<b>\$186</b>	<b>\$2.97</b>	<b>\$0.83</b>
<b>BREAKEVEN MILK PRICE, \$/cwt</b>	<b>\$14.73</b>	<b>\$16.87</b>	<b>\$14.73</b>	<b>\$16.87</b>
<b>ASSET TURNOVER</b>		<b>80.7%</b>		<b>80.7%</b>
<b>NET RETURN ON ASSETS</b>		<b>11.29%</b>		<b>11.29%</b>
<b>RETURN ON EQUITY</b>		<b>14.62%</b>		<b>14.62%</b>

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## 2008 has potential, but...



- Margins are positive, but they are relatively tight so it is important to recognize where your major risks are
- Risk of market prices is always important
  - Milk price
  - Feed costs
- Production risk

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# Production and milk price risk...



Figure 1. Sensitivity of Return on Assets to Milk Production & Milk Price

Region/year => Midwest (2008)								
Milk production	Average Milk Price, \$/cwt	\$15.07	\$15.57	\$16.07	\$16.57	\$17.07	\$17.57	\$18.07
64.6	0.75%	2.56%	4.36%	6.17%	7.98%	9.78%	11.59%	
67.1	2.25%	4.12%	6.00%	7.88%	9.75%	11.63%	13.51%	
69.6	3.74%	5.69%	7.63%	9.58%	11.53%	13.48%	15.42%	
72.1	5.24%	7.25%	9.27%	11.29%	13.30%	15.32%	17.34%	
74.6	6.73%	8.82%	10.91%	12.99%	15.08%	17.17%	19.25%	
77.1	8.23%	10.38%	12.54%	14.70%	16.85%	19.01%	21.17%	
79.6	9.72%	11.95%	14.18%	16.40%	18.63%	20.86%	23.08%	

ROA is positive everywhere, but anytime it is below the interest rate this could lead to cashflow concerns (depending on equity position).

# Production and milk price risk...



Figure 2. Sensitivity of Return over Total Cost/Cow to Milk Production & Milk Price

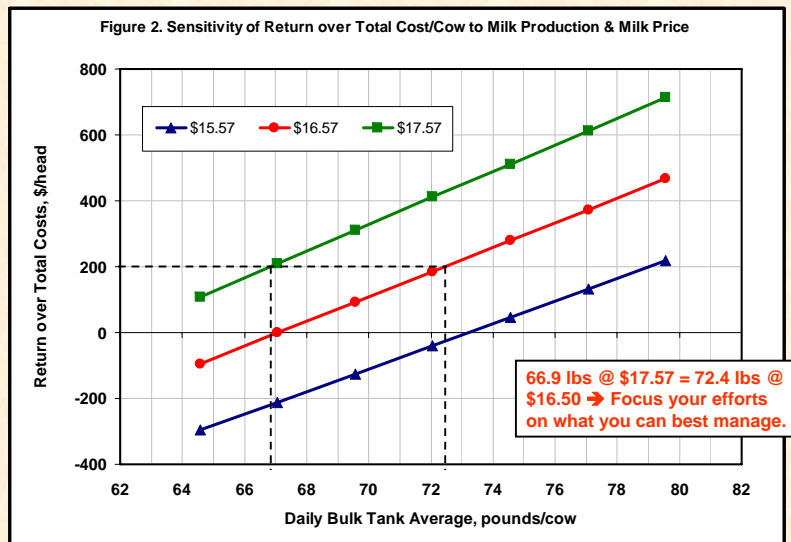
Region/year => Midwest (2008)								
Milk production	Average Milk Price, \$/cwt	\$15.07	\$15.57	\$16.07	\$16.57	\$17.07	\$17.57	\$18.07
64.6	-\$397.44	-\$296.64	-\$195.85	-\$95.06	\$5.73	\$106.52	\$207.31	
67.1	-\$315.51	-\$210.82	-\$106.12	-\$1.43	\$103.27	\$207.96	\$312.65	
69.6	-\$233.59	-\$124.99	-\$16.39	\$92.20	\$200.80	\$309.40	\$418.00	
72.1	-\$151.66	-\$39.16	\$73.34	\$185.84	\$298.34	\$410.84	\$523.34	
74.6	-\$69.74	\$46.66	\$163.07	\$279.47	\$395.87	\$512.28	\$628.68	
77.1	\$12.19	\$132.49	\$252.80	\$373.10	\$493.41	\$613.71	\$734.02	
79.6	\$94.11	\$218.32	\$342.53	\$466.74	\$590.95	\$715.15	\$839.36	

Economic returns per cow start going negative with fairly small drops in prices, or as production declines.

# Production and milk price risk...



Figure 2. Sensitivity of Return over Total Cost/Cow to Milk Production & Milk Price



# Production and feed cost risk...



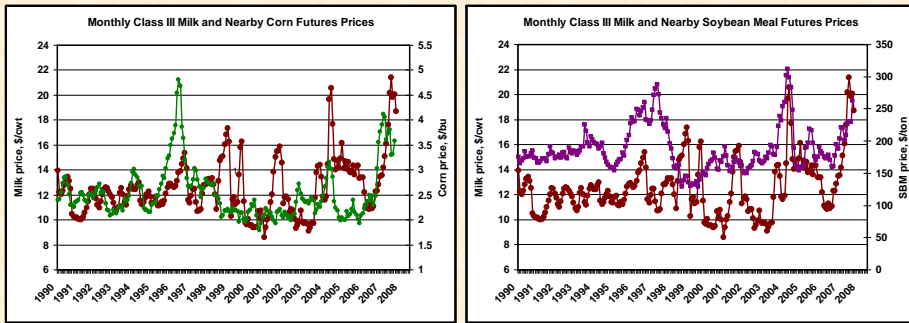
Figure 3. Sensitivity of Return over Total Cost/Cow to Milk Production & Feed Price

Region/year => Midwest (2008)								
Milk production	Average Lactating Cow Feed Price, \$/cwt*	\$9.63	\$9.88	\$10.13	\$10.38	\$10.63	\$10.88	\$11.13
64.6	\$24.91	-\$15.08	-\$55.07	-\$95.06	-\$135.05	-\$175.04	-\$215.03	
67.1	\$121.25	\$80.36	\$39.47	-\$1.43	-\$42.32	-\$83.22	-\$124.11	
69.6	\$217.60	\$175.80	\$134.00	\$92.20	\$50.41	\$8.61	-\$33.19	
72.1	\$313.94	\$271.24	\$228.54	\$185.84	\$143.14	\$100.44	\$57.74	
74.6	\$410.28	\$366.68	\$323.07	\$279.47	\$235.87	\$192.26	\$148.66	
77.1	\$506.62	\$462.12	\$417.61	\$373.10	\$328.60	\$284.09	\$239.58	
79.6	\$602.96	\$557.55	\$512.15	\$466.74	\$421.33	\$375.92	\$330.51	

\* Feed prices for dry cow diets and heifer pre-calving diets change proportionately.

Higher feed prices are not devastating so long as production remains high.

# Input and output price relationships...

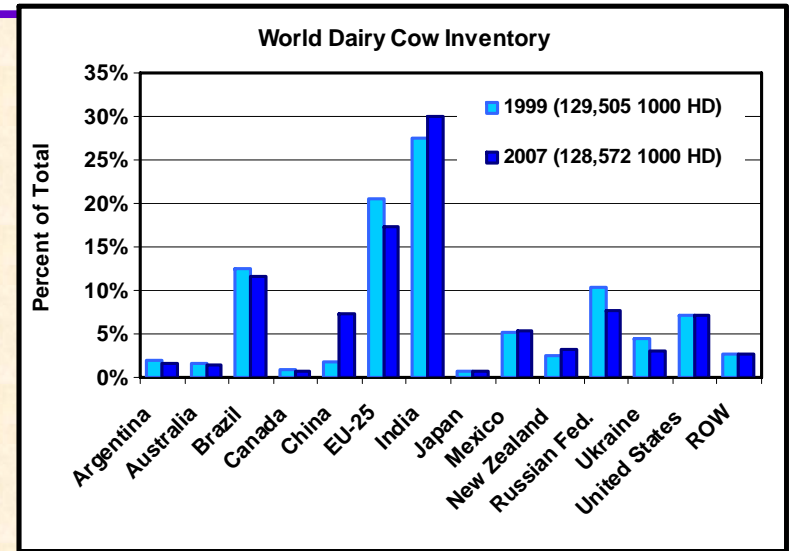


## Correlation between:

Corn & milk prices = 0.317; SBM & milk prices = 0.317; Corn & SBM prices = 0.622

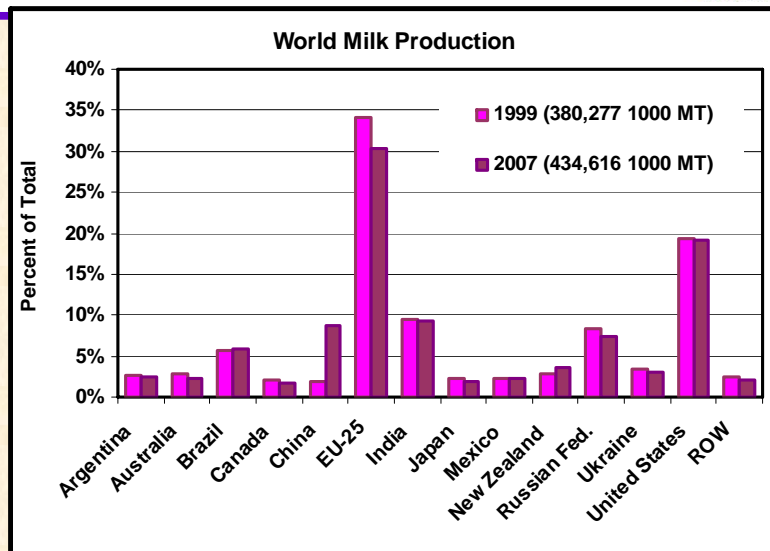
While these relationships are positive (i.e., prices tend to move in the same direction), they are not particularly strong. Thus, be careful locking in one price and not the other...

# Location of world's dairy cows...



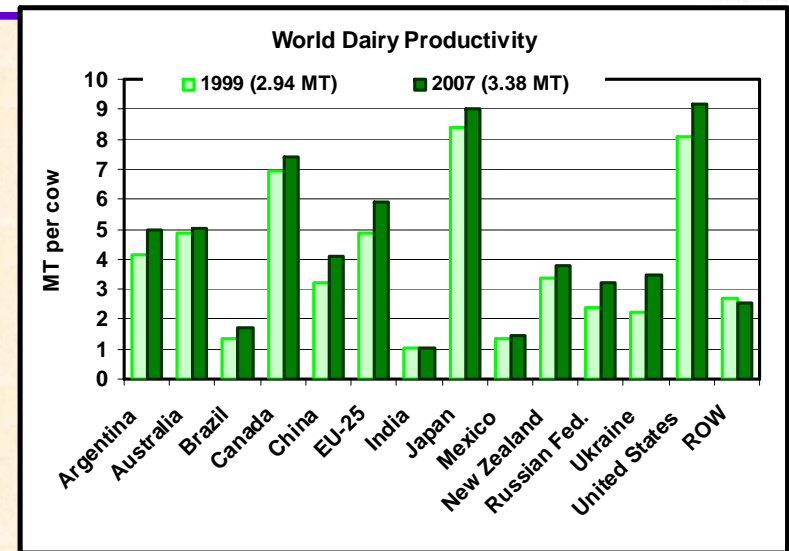
Source: USDA Foreign Agricultural Service (FSA)

# Location of world's milk production...



Source: USDA Foreign Agricultural Service (FSA)

# Productivity of world's dairy cows...



Source: USDA Foreign Agricultural Service (FSA)

## Summary...

- Based on current futures market prices
  - Milk prices in 2008 will be lower than last year
  - Feed prices in 2008 will be higher than last year
- Profit outlook is positive assuming you are getting average or better production and capturing economies of size regarding overhead costs
- Price risk will likely be a major factor in 2008, especially on the feed price side
- Strong prices globally will lead to production changes pressuring milk prices longer-term

http://damagissues.feedstuffs.com/feeds/Issues/057944/0514\_7944.pdf

Feedstuffs, October 22, 2007

### EU dairy producers lay out sector reforms

By IAN ELLIOTT

ORGANIZATIONS representing the bulk of the European Union's milk producers and cooperatives laid out their portrait for what they need to see when the 27-nation bloc reforms its dairy regime.

The European Commission will start that reform process next month by laying out what it proposes to do to reform the bloc's Common Agricultural Policy (CAP) as part of the 2007-2013 budgetary framework. CAP will face a major overhaul around 2013.

EU Agriculture Commissioner Mariann Fischer Boel said recently that she is thinking of proposing a major increase in dairy production quotas as part of November's health check. The increase production could be in place as soon as next April. The European Commission wants to end all quotas by March 31, 2015.

On Oct. 8, the EU's Committee of Professional Agricultural Organizations (COPA) and General Confederation of Agricultural Co-operatives (COGECA) skirted the question of ending quotas in their first look at a dairy reform package. However, they were direct on the underlying structure needed in any package, insisting that it must allow dairy producers "to have a fair income and be profitable."

"European dairy farmers and cooperatives have, in the past, enjoyed a situation of relative market balance," said Pekka Pesonen, secretary general of COPA-COGECA. "Major market fluctuations were avoided, and this contributed to stable milk prices for consumers and producers alike."

"The European dairy sector as well as rural areas in general have benefited substantially from a balanced geographical distribution of milk production and processing across all EU member states," Pesonen added. "COPA and COGECA strongly wish that these essential traits of the (European) Community dairy policy will be maintained in the future for the benefit of European society."

**Stable, balanced, predictable**

Any reform package, COPA and COGECA said, needs to be premised on three principles: "stability, balance and a high degree of predictability."

"The existing regime has led to stability and predictability in the dairy sector. Quotas, introduced in 1984, have been a major contributing factor in this stability while at the same time maintaining a balanced geographical distribution of milk production and dairy processing," the groups said.

They stressed that any new reform package needs to meet five policy objectives:

- (1) "A secure and reliable supply of high-quality and fully traceable milk and dairy products."
- (2) "Protection and improvement of dairy producers' incomes and profitability."
- (3) "Maintenance and promotion of competitive dairy farms and processing industries."
- (4) "Encouragement of young people to enter the dairy sector."

(5) "Ensuring that dairy production and processing are carried out throughout the entire EU."

Any new policies agreed need to be funded within the EU's budget. The groups made it clear that they are not particularly interested in any reform package that simply takes money from dairy farmers' pockets and distributes it to processors and retailers.

Competition regulators in Britain recently charged major grocers and dairy processors with price collusion.

"The long-term competitiveness of dairy producers will first and foremost come from fair milk prices," the groups said. "Competitiveness must not be achieved through low dairy prices that would compromise producers' livelihoods. Instead, a specific political framework for milk should seek to raise milk prices to a level that fully reflects the increasing costs of milk production."

In order to improve dairy producers' income, any reform package needs to "reduce imbalances in the food chain," improve marketing structures, curb price volatility, keep track of long-term production trends — watching particularly for overproduction — review other EU policies impeding competitiveness and "stay firm and EU-oriented in trade negotiations," COPA and COGECA said.

Finally, EU legislators need to do something about production quota values.

"Throughout the EU, milk quotas have often been purchased as an investment. In many cases, the value of the quota serves as a security for bank loans. Dramatically destroying this value is likely to have serious economic consequences on many people's livelihoods," they said.

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Questions?

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- Current Grain Outlook Newsletter  
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