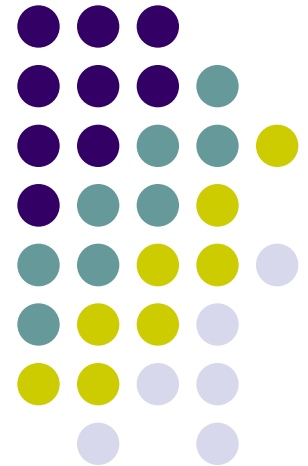
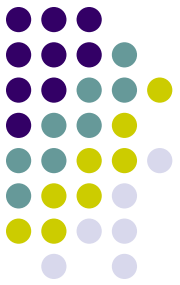


Dairy Outlook 2004

By Ken Bailey
Penn State University

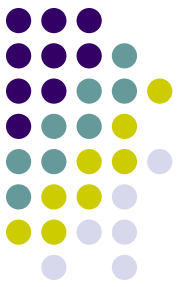


Updated February 7, 2004



In the News . . .

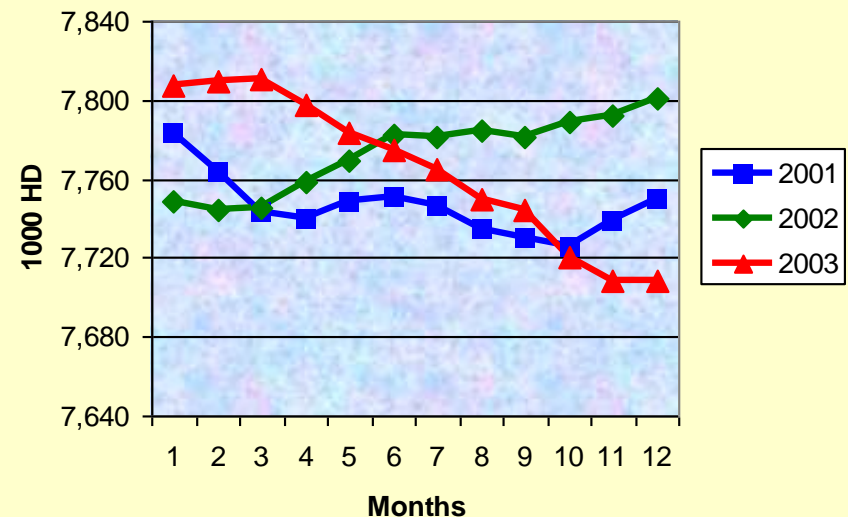
- Commercial stocks of butter tighten
 - Monsanto cutting back on sales of Posilac
 - Cow numbers keep falling.
 - World prices high.
 - Class III futures rising.
-
- Slaughter prices weakening
 - Soybean prices rising



Cow Numbers Keep Falling

- Trend is down
- CWT program culled cows in Oct-Dec
- Outlook for 2004 is for slower rate of decline

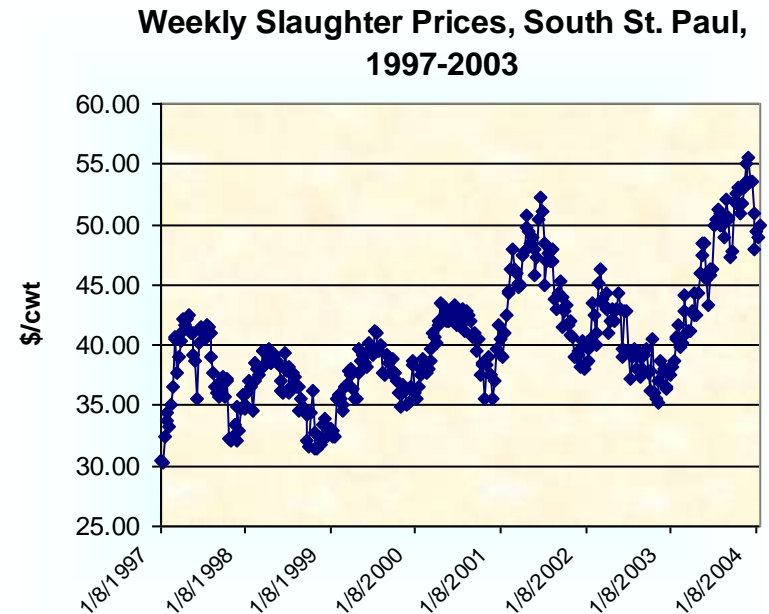
Cow Numbers for 20 Select States

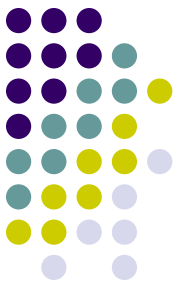


Slaughter Cow Prices Weakening



- Recent prices dropping.
- BSE scare is a concern.
- Could reduce culling rates and increase number of milking cows.

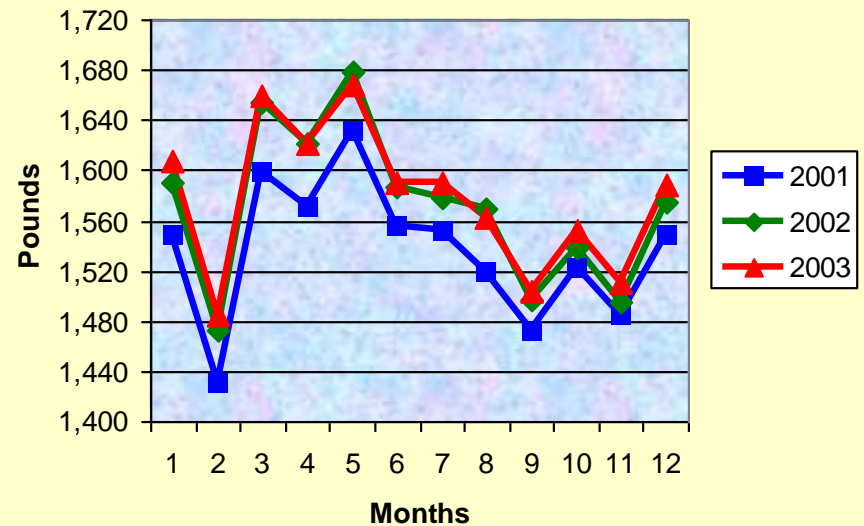




Milk Per Cow Flat

- Despite California scare, milk per cow is even with year ago.
- What will happen this year?
 - Posilac shipments reduced
 - Feed prices higher

Milk Per Cow for 20 Select States



Impact of Reduced Shipments of Monsanto's Supplemental rBST

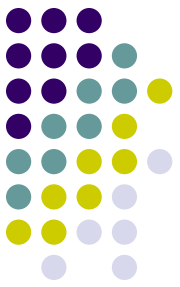


- Baseline for 2004:
 - 8,973 thou head
 - 19,064 lbs/cow
 - 171.1 billion pounds produced
- Now, 50% reduction in shipments:
 - Assume 30% use rBST at any one time
 - Treat for 244 days, get 10 lbs/day
 - rBST shipments cut in half starting March 1
 - *U.S. milk supply drop could be significant!*

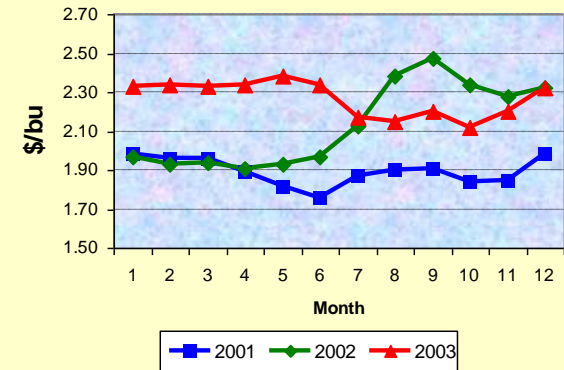


Feed Prices Rising

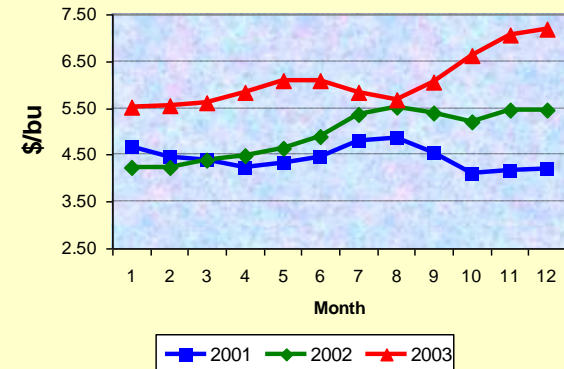
- Corn and soybean prices rising.
- Feed value, however, stable due to lower alfalfa prices.



Chicago Corn Price



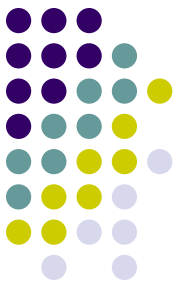
U.S. Soybean Prices



Commercial Disappearance, Jan-Nov, 2002-2003

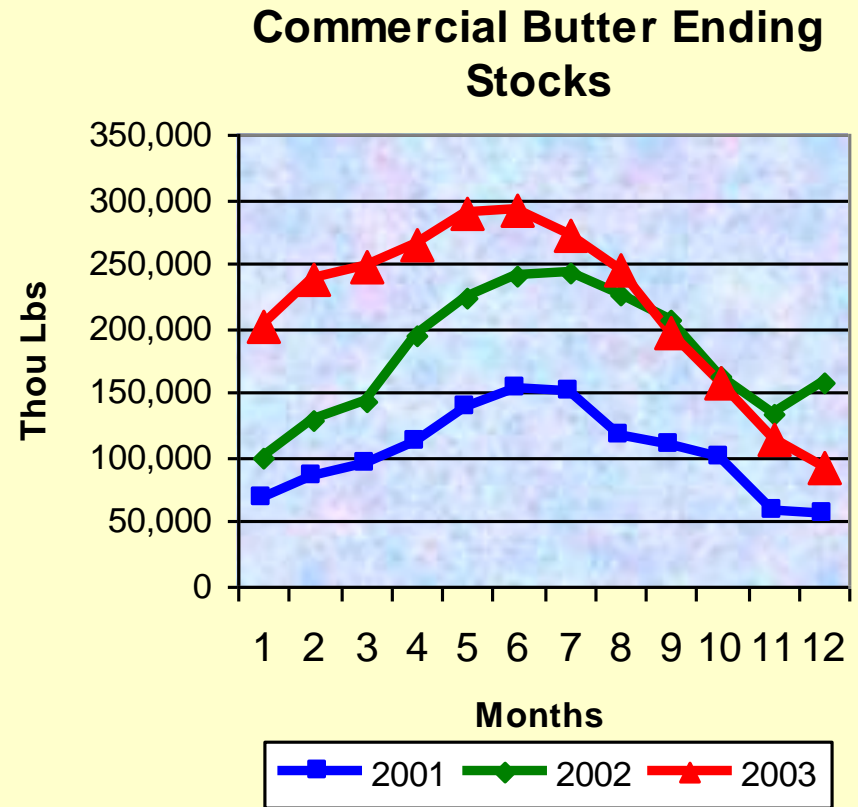


Dairy Product	Percent Change
(U.S. milk production)	(0.0%)
Butter	-1.8%
American cheese	-1.0%
Other cheese	1.8%
Nonfat dry milk	-4.0%
Total beverage milk	-0.9%

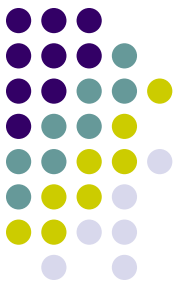


Butter Inventories Dropping

- Butter processing through November down 8.3 percent.
- Commercial sales pretty good.
- Inventories took a hit.

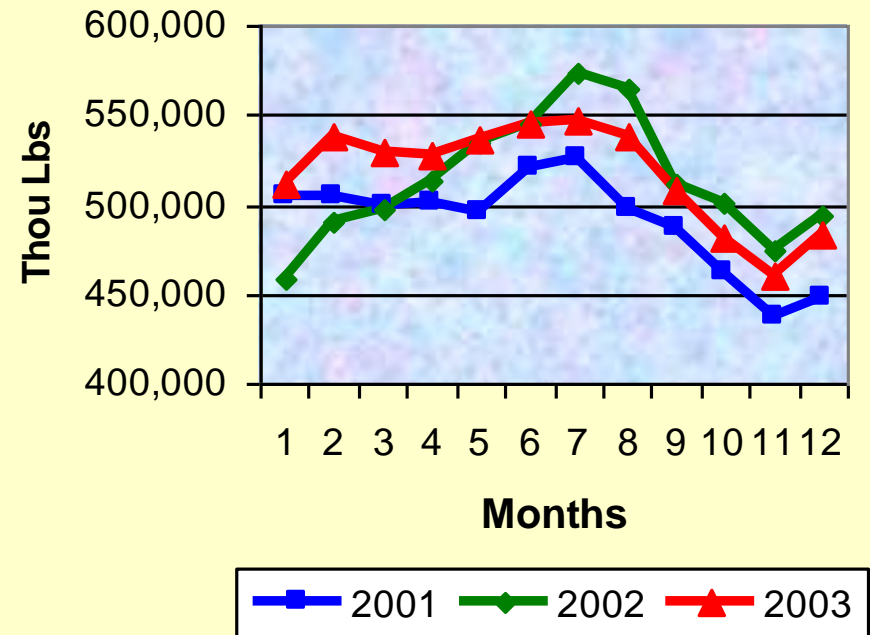


American Cheese Inventories



- Production through November down 1.0%.
- Commercial use down 1.0%.
- Inventory is just below year ago levels.

Commercial Ending Stocks for American Cheese

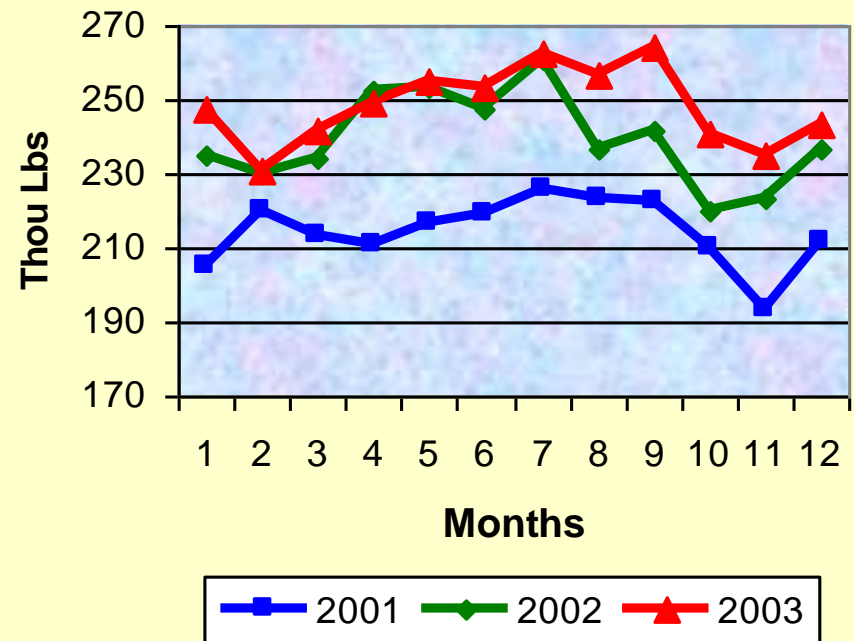


Other Cheese Stocks Rebound



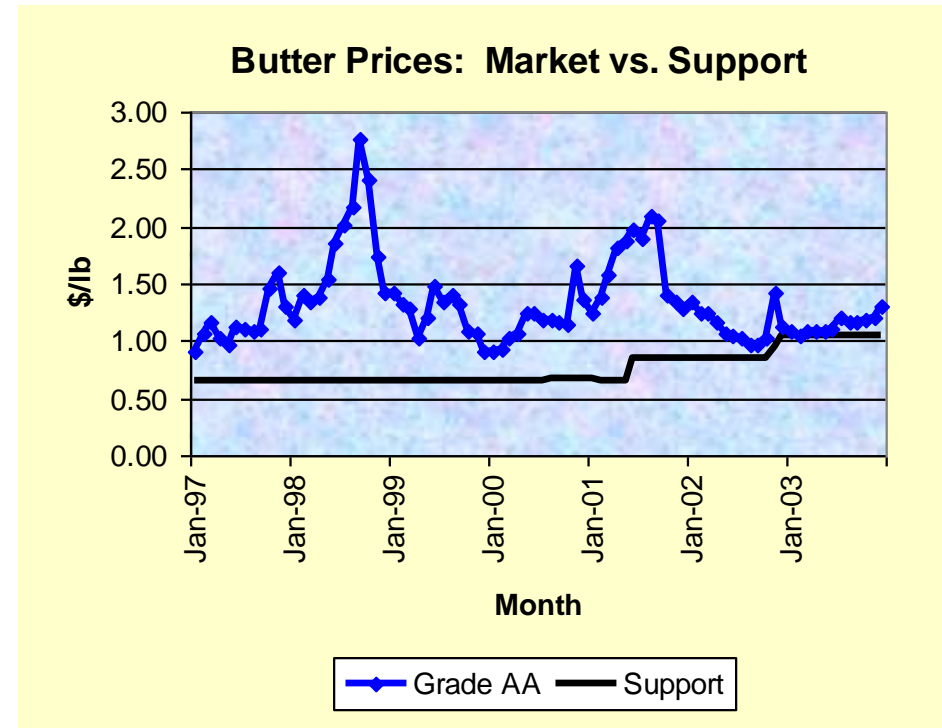
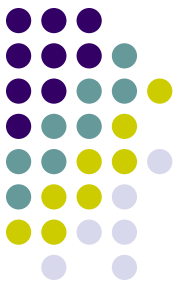
- Production up 1.5%.
- Commercial use is surprisingly up 1.8%.
- Stocks up 3.9%.

Commercial Ending Stocks for Other Cheese



Butter Prices

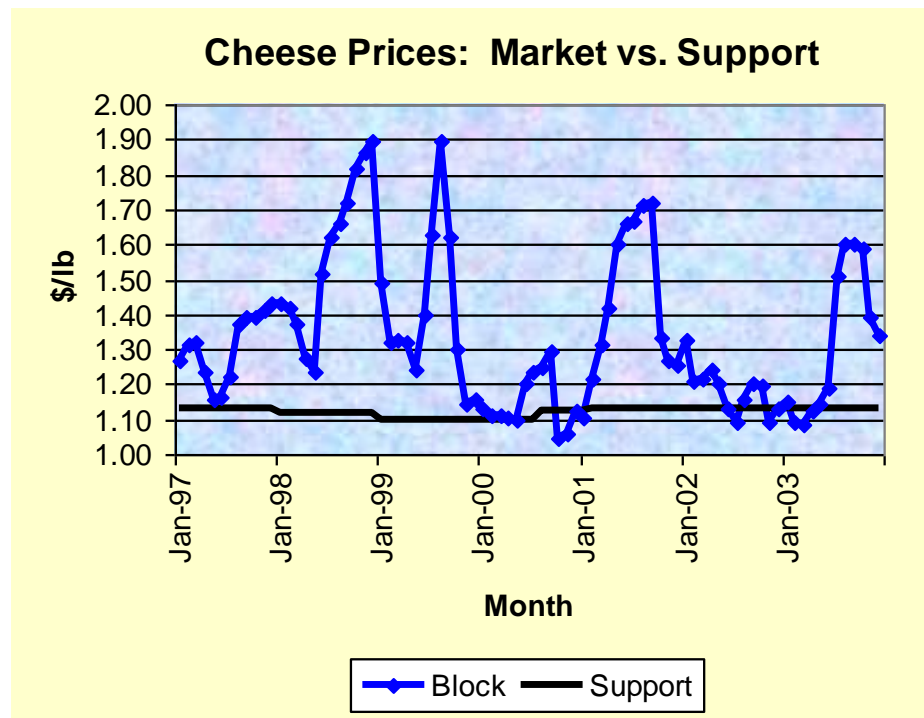
- Rising above support.
- Butter will be in short supply for 2004.



Cheese Prices



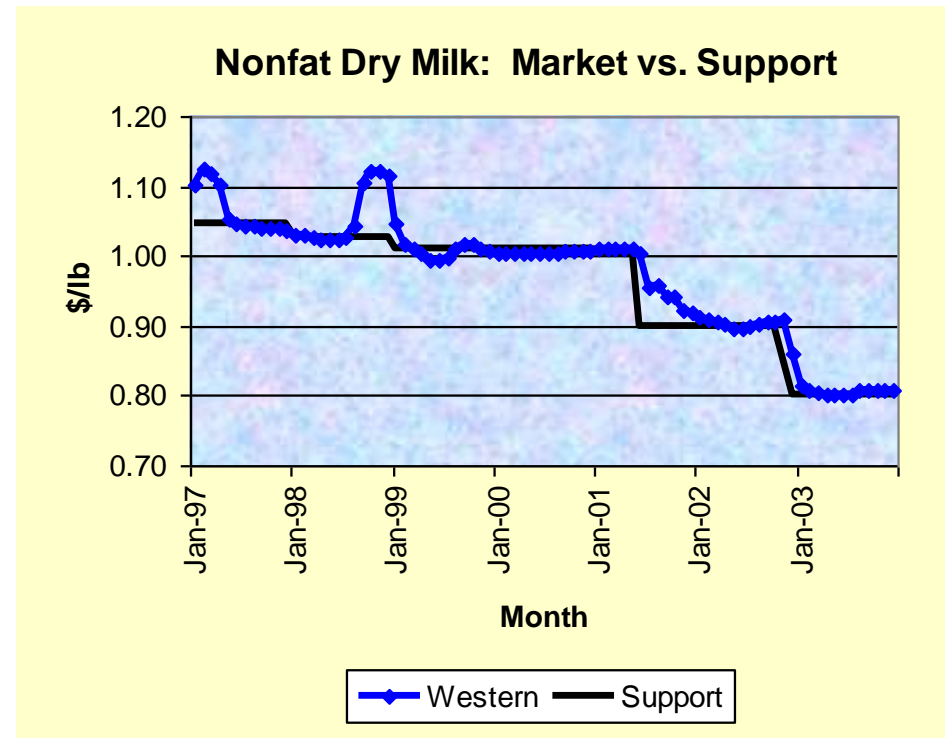
- Cheese prices volatile.
- Prices rose last fall due to perceived shortage.
- Prices will improve in 2004.



Nonfat Dry Milk Prices



- Prices stuck at support.
- Support prices unlikely to change in 2004.

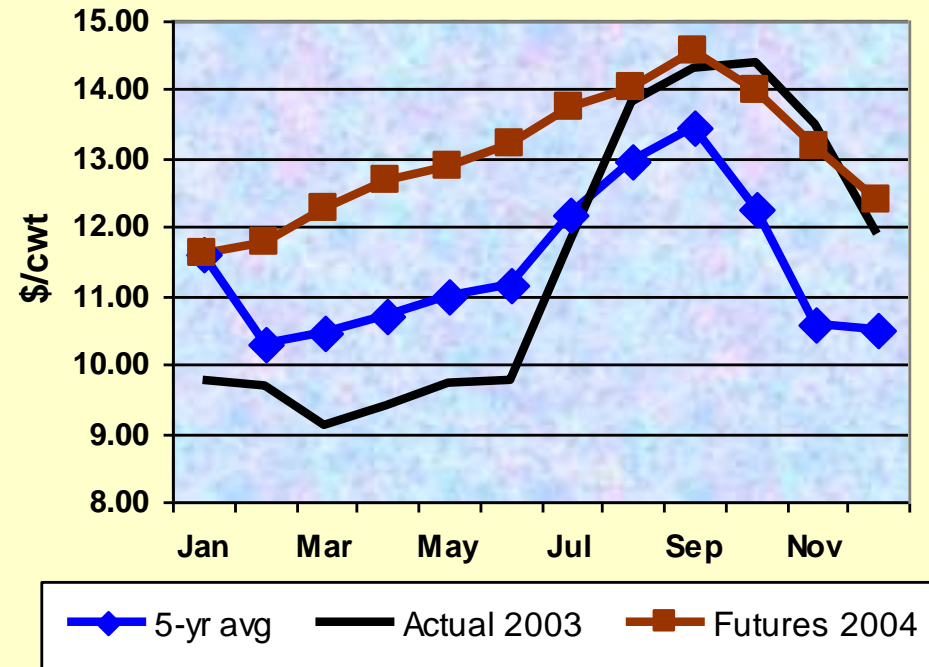


Class III Prices



- Futures for 2004 are \$1.60/cwt above 5-year average.

Class III Futures (02/06/04) Compared to 5-year Average

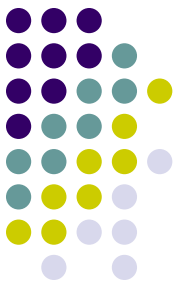


CME Futures Showing Strength

Table 1. Summary of Class III Milk Prices, \$/cwt

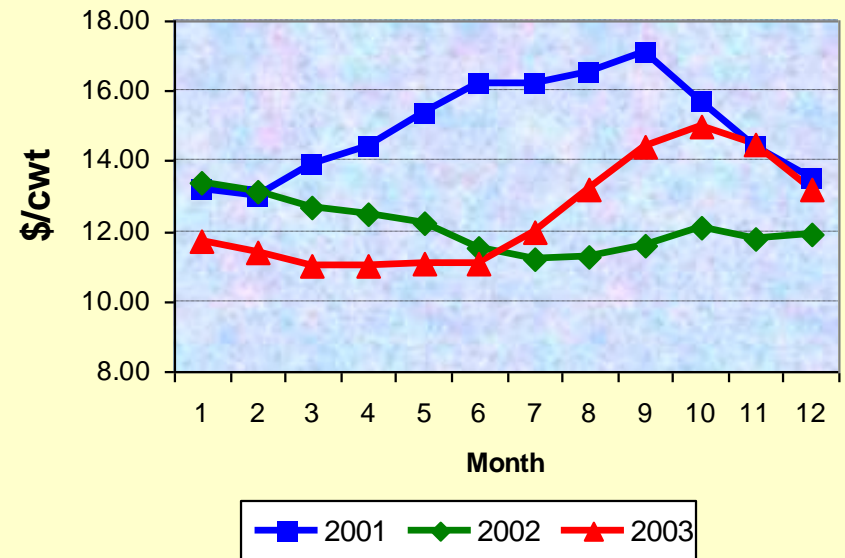
	1999	2000	2001	2002	2003	5-Year Average	Actual 2004	2/6/2004 Futures 2004
Jan	16.27	10.05	9.99	11.87	9.78	11.59	11.61	11.61
Feb	10.27	9.54	10.27	11.63	9.66	10.27		11.77
Mar	11.62	9.54	11.42	10.65	9.11	10.47		12.26
Apr	11.81	9.41	12.06	10.85	9.41	10.71		12.65
May	11.26	9.37	13.83	10.82	9.71	11.00		12.89
Jun	11.42	9.46	15.02	10.09	9.75	11.15		13.20
Jul	13.59	10.66	15.46	9.33	11.78	12.16		13.73
Aug	15.79	10.13	15.55	9.54	13.80	12.96		14.02
Sep	16.26	10.76	15.90	9.92	14.30	13.43		14.57
Oct	11.49	10.02	14.60	10.72	14.39	12.24		13.96
Nov	9.79	8.57	11.31	9.84	13.47	10.60		13.15
Dec	9.63	9.37	11.80	9.74	11.87	10.48		12.40
Q1	12.72	9.71	10.56	11.38	9.52	10.78		11.88
Q2	11.50	9.41	13.64	10.59	9.62	10.95		12.91
Q3	15.21	10.52	15.64	9.60	13.29	12.85		14.11
Q4	10.30	9.32	12.57	10.10	13.24	11.11		13.17
Annual	12.43	9.74	13.10	10.42	11.42	11.42		13.02

All-Milk Prices



- Milk prices recovered in fall of 2003 due to higher cheese prices.
- Prices expected to improve in 2004.

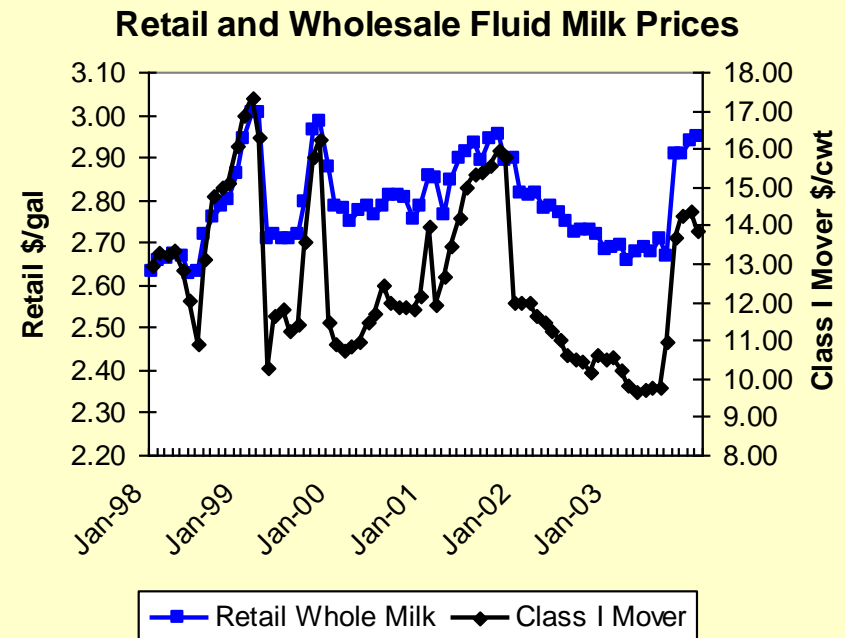
U.S. All Milk Price



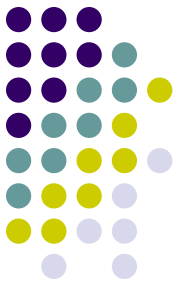
Retail Milk Prices Moving with Class I Mover



- Both prices go down.
- Both prices go up.
- Relationship stronger in Pennsylvania.

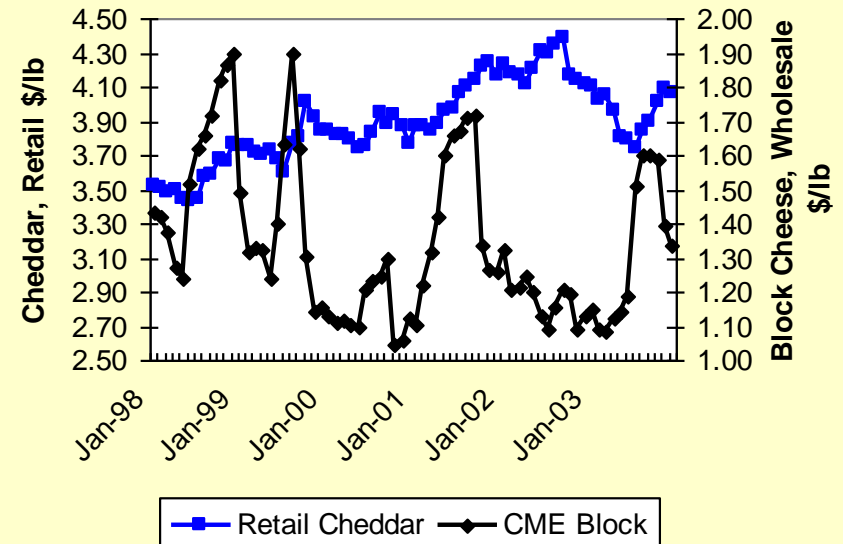


Poor Relationship Between Retail and Wholesale Cheese Prices

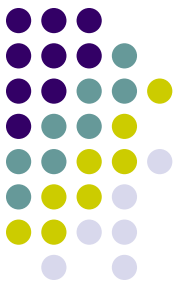


- Retail prices moving opposite of wholesale prices.
- Only 30% of cheese sold at retail.
- Most cheese sold in foodservice or other foods.

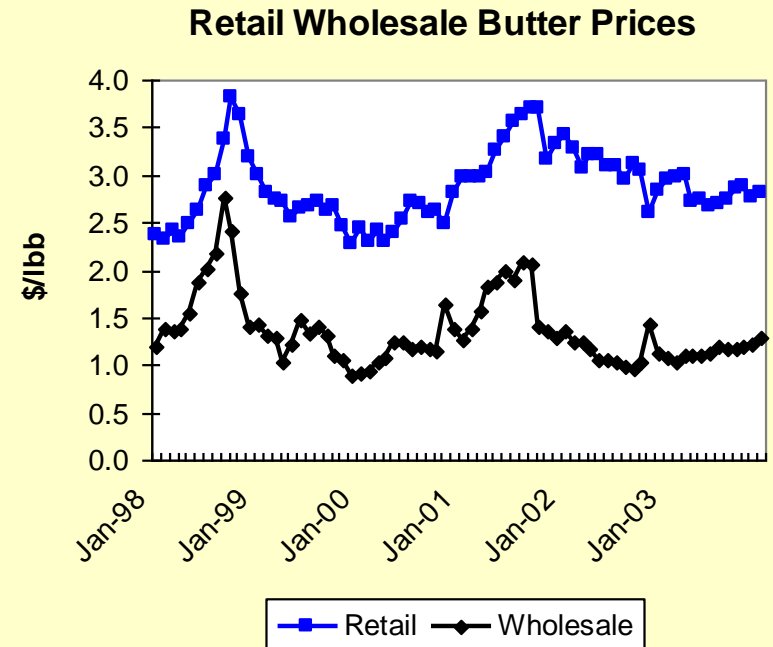
Retail and Wholesale Cheese Prices



Retail to Wholesale Prices for Butter

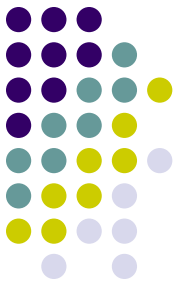


- Usually a good relationship.
- Markup appears to be narrowing in 2003.

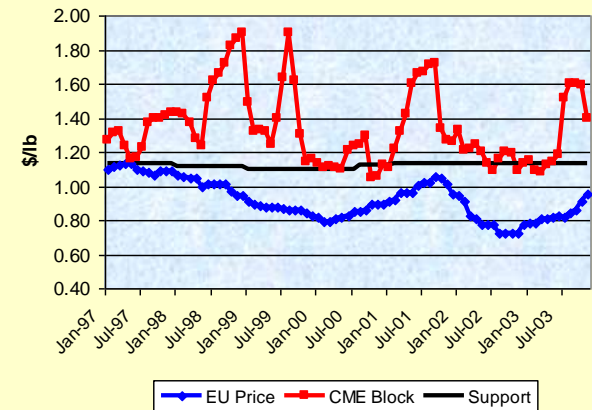


International Prices

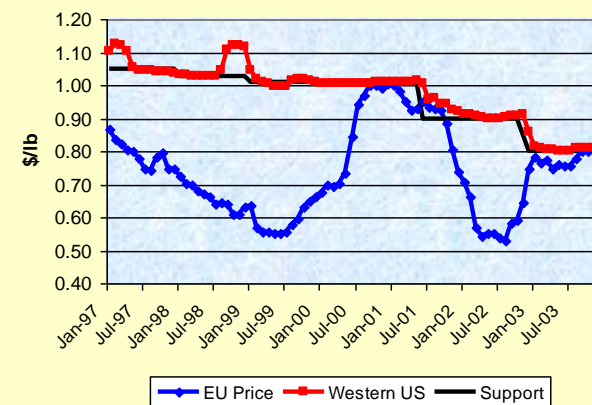
- Cheddar and skim prices rising.
- Skim prices now at U.S. support levels.
- World butter prices still well below U.S. support price.



World Cheddar Cheese Prices



World Skim Milk Prices





USDA Forecasts for 2004

	2003	2004	% change
Milk cows (thou)	9,085	8,935	-1.65
Milk per cow (pounds)	18,680	19,185	2.70
Milk production (bil. lbs.)	169.8	171.2	0.82
Commercial use (bil. lbs.)			
milkfat	173.7	176.8	1.78
skim solids	165.1	169.8	2.85
Net removals (bil. lbs.)			
milkfat	1.2	0.3	-75.0
skim solids	8.7	5.7	-34.5



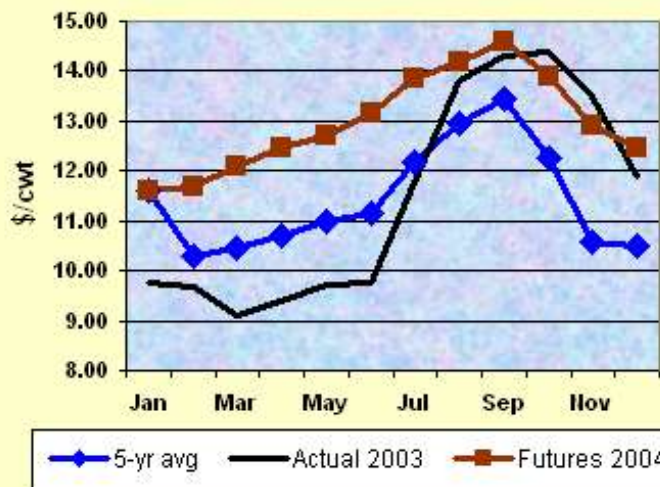
- Outlook and Futures
- Current Reports
- Pennsylvania Information
- Market Data and Graphs
- Federal Order Data
- Northeast Economic Forecasts
- Trade Data
- Information for Extension Agents
- Ken Bailey
- Links
- Ken's Travels
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CME Futures Prices Rally

Ken Bailey's Weekly Commentary for January 30, 2004:

- ▶ [Text \(html format\)](#)
- ▶ Audio report for November 21, 2003:
 - ▶ [For modems \(394 kb, wma\)](#)
 - ▶ [High speed access \(2,960 kb mp3\)](#)
 - ▶ [Archive of audio reports](#)

Class III Futures (01/30/04) Compared to 5-year Average



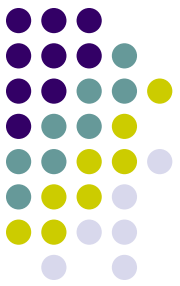
NEW! [Winter 2004 Dairy Outlook Newsletter!](#)



New Reports

- **NEW!** [Briefing paper on ITC Hearing, December 11, 2003](#)
- [Impact of Dairy Imports on the U.S. Dairy Industry, July 2003](#)
- [A Multiple Component Analysis of U.S. Dairy Trade, June 2003](#)
- [Study on the impact of MPC's on U.S. cheese production, March 2003](#)
- [Excel spreadsheet on impact of tilt & new formulas, Nov. 22, 2002](#)
- [Paper on small dairy farms, September 2002](#)

Check out Ken Bailey's textbook on [milk marketing](#)



Conclusions

- Milk supply expected to be tight in 2004:
 - Reduced cow numbers
 - Reduced milk per cow
- Demand should be steady due to strong economy
- Watch out for:
 - Rebound in milk production
 - Rising feed costs