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## OUTLOOK FOR DAIRY

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Dairy demand growth has been racing production expansions in recent years, driving markets in 1998 and most of 1999 but badly lagging in 2000. In 2001, ample supplies are expected to keep prices at relatively low levels. However, demand probably will narrow the gap as the crest of the milk production expansion has passed.

### Demand Uncertainty Grows

Growth in dairy demand in 2001 may not match the exuberant pace of recent years, as the economic expansion is beginning to show some ragged edges after a long steady run. Even so, dairy demand is projected to remain fairly good through at least most of the year because a major economic slowdown does not seem likely. Demand for cheese, butter, and cream probably will continue to show the most strength.

The general economy is still predicted to grow this year and probably will continue to bolster dairy demand. However, slower overall growth, some layoffs, higher energy costs, slippage in stock values, and media attention to signs of economic softening may reduce consumer confidence and make them more cautious about spending. Consumer retrenching probably will affect different dairy products unevenly but will have a dampening effect overall.

The past three years may well have seen the strongest overall dairy demand in memory. Consumers decided to pamper themselves in a variety of ways and significantly increased spending for food. They boosted spending for away-from-home eating and also treated themselves when they went to the grocery store. This demand was evident for cheese, butter, cream, and premium ice cream, as well as for high quality beef, more expensive pork cuts, and other foods. Staple dairy products sold mostly at retail, such as fluid milk, did not fare nearly as well. Their demand was largely stagnant.

The weak spot in dairy demand was for skim solids used in processed foods. Collapsing sales of many nonfat and very lowfat foods contributed to the decline, as did increased food use of whey products. Imports of concentrated milk proteins have grown substantially and probably have substituted for skim solids in some uses, although little is known about the use of imported proteins. Demand for skim solids as ingredients may have picked up a bit during the second half of 2000 but recovery has been slow.

Overall, commercial use of milkfat grew almost 3 percent per year since 1997. Rises in milkfat sales more than doubled population, despite retail dairy prices rising at an annual rate about 1 percentage point more than the Consumer Price Index. This demand surge was the major shaper of dairy markets during this period. Even if sales of skim solids in all products paled in comparison to milkfat sales, they still rose at a 1.6 annual rate, considerably stronger than in most years and well ahead of population rises.

### Production Spurt Easing

The dark side of surging demand is that its resulting strong milk prices usually unleash a rapid expansion in milk production. Growth in output clearly overwhelmed demand during late 1999 and

2000. However, the crest of the production expansion has passed, and milk prices may start to recover by the second half of 2001.

Low concentrate feed prices continue to encourage heavier feeding and brisk gains in milk per cow. Large projected carryout stocks of both corn and soybeans will dampen any upward price pressures in 2001. Milk-feed price ratios in 2000 were considerably lower than during the preceding 2 years, but stayed at levels associated with slightly above-trend growth in milk per cow. Milk-feed price ratios are expected to average about the same in 2001.

The dairy forage situation is less favorable than for concentrates. Alfalfa hay production was lower in 2000 and moderate quality problems were common, at least for some cuttings. Exports also picked up last year, draining off some of the top quality hay. December 1 stocks of all hay were significantly below a year earlier, although stocks of other hay may have dropped more than alfalfa stocks. Alfalfa hay prices recently were well above year-earlier levels and probably will remain so during the rest of 2001. Corn silage production was also down in most dairy areas during 2000.

Milk per cow in 2000 rose about 2 percent from 1999 on a daily average basis, a deceptively modest increase. Growth in milk per cow during 1999 was extraordinary, making the following 2000 increase impressive. Compared with the 5-year average, gains in 2000 milk per cow were clearly above trend. However, milk per cow increases by late 2000 had eased to slightly below trend levels, possibly caused by emerging forage problems. Patterns of milk per cow may also have been affected by a bunching of freshenings related to rapid farm expansions in late 1999 and early 2000 and by less use of bovine somatotropin.

This year, milk per cow is projected to increase about 1 percent on a daily average basis, putting it about on trend from the 5-year average milk per cow. Although milk-feed price ratios might argue for slightly above-trend gains, forage problems likely will trim the rise.

After rising steadily during 1999 and the first half of 2000, milk cow numbers held steady through the summer and turned downward during autumn. Milk cow numbers ended the year near where they began. Last year's relatively flat pattern resulted from a gradually slowing of expansion by financially strong farms and a gradual acceleration of the exit of weaker farms.

Returns over costs of concentrate feeds exceeded \$11 per cwt of milk in 1996 and 1999 and shot past \$12 in 1998. These strong returns provided ample incentive, and considerable funding, for accelerated expansion by stronger producers. Although western expansion received the most attention, similar large, industrially organized operations were growing in most regions. As expected, the lower 2000 returns did little to slow expansion until late in the year, after plans made before the price drop were complete. Returns over concentrate cost fell below \$9.50 per cwt in 2000.

The pick-up in farms exiting dairying was more sluggish than predicted but not surprising. Although many of these farms have poor longrun income prospects, they typically have relatively little debt and are therefore relatively unaffected by lender decisions. Although recent returns were low, the 1998-99 returns had left these families in a position to hang on a little longer. Exits did not accelerate until late 2000, and strong prices for replacement cows kept a relatively large share of the cows in exiting herds from going to slaughter.

Returns over concentrate costs are projected to remain relatively low through at least most of 2001. At these returns, cow numbers are expected to erode steadily during the year and average 0.5 to 1 percent

below a year earlier. Even so, the slowing of expansion and the increase in exits probably will continue to develop somewhat gradually.

Expansion of strong farms shows no sign of slowing dramatically. Demand for dairy replacements stays strong. Replacement cow prices, although slightly below late 1999 and 2000 levels, are still above \$1300 despite a large herd of replacement heifers at the start of 2001. The lower returns, needed consolidation after recent rapid expansion, and forage problems will tend to slow, but not stop, expansions in 2001.

Similarly, farm exits likely will be more numerous in 2001 but are not expected to generate rapid declines in milk cow numbers. Cull cow prices are projected to be the highest in a number of years but probably will not be enough to divert many cows to slaughter, at least as long as replacement prices stay fairly firm.

Milk production is projected to be about unchanged in 2001, following two straight 3-percent increases. If milk per cow can recover from its current weakness, milk output may run near a year earlier during most of 2001.

#### Skim Solids Surplus To Continue

Surging 2000 milk production and only modest growth in commercial use of skim solids led to a surplus equivalent to almost 9 billion pounds of milk on a skim solids basis. This was the largest such surplus since the mid-eighties. Meanwhile, the surplus was almost trivial on a milkfat basis, totaling less than 1 billion pounds, milk equivalent. It is not a great oversimplification to say that very tight milkfat markets starting in 1998 led to strong milk prices, then to sharply increased milk production and a large surplus of skim solids.

Nonfat dry milk was the only product with a sizable surplus in 2000, totaling almost 700 million pounds. Four-fifths of the powder surplus was purchased under the price support purchase program, as Dairy Export Incentive Program (DEIP) exports were held to the now-modest WTO limit. Small DEIP exports of butter, cheese, and dry whole milk were also made. A little cheese was also sold to the Government, but the dairy industry resisted selling even during extended periods of prices near or below support purchase prices.

In 2001, the surplus of skim solids is expected to decline as growth in commercial use outweighs the increase in milk output. Even so, purchases of nonfat dry milk are projected to be large. With Government stocks of nonfat dry milk exceeding 500 million pounds at the start of the year (including significant amounts of old powder), these purchases likely will increase pressure for some sort of inventory reduction measures. Cheese purchases are not expected to be sizable, and DEIP exports of butter probably will again fall short of the WTO limit.

#### International Prices Mixed

International prices of nonfat dry milk jumped from about \$1500 per ton in early spring to over \$2000 in early summer. Since then, they have held at levels near or slightly below U.S. domestic prices. Recovery in demand for dry milks in Asia, good feed demand in the European Union (EU), contraction in U.S. exports because of WTO commitments, weakness in eastern European output, and milk production growing less than expected in Oceania all played a role. However, the current market tightness is qualitatively unlike any previous period. In previous episodes, significant tightening caused availability concerns on the part of importers, who began to buy extra to build stocks. In turn, these actions tightened the market further and forced prices even higher. Once importers began to feel

comfortable, cuts in new business sent prices sharply back down. This time, a U.S. surplus large enough to meet any foreseeable needs removed any buyer panic. Powder markets essentially settled where additional product is available at a very small premium, and only modest commercial exports have been made. This price pattern is expected to continue through much of 2001.

Milkfat markets have been fairly steady since early 1999, showing some seasonal movements and a slight downward trend. Supplies have been fairly moderate, as strong demand for whole milk internationally and good domestic demand in Europe and North America trimmed export supplies of butter. However, international demand for milkfat generally has been lackluster. Demand from Islamic countries has been stronger but Russian demand has stayed weak. Some rise in butter prices is possible this year, but real strength is not expected.

#### Muted Price Recovery Expected

Wholesale prices of butter and cheese have been unsettled thus far in 2001, somewhat unusually so for a winter period with fairly weak prices. Increases in milk production have shrunk, output of major products has decreased, but cold storage stocks are large. Consumer purchases probably have been fairly good but wholesale product movement has been confused by the uncertain state of pipeline holdings. Exchange prices of cheese have risen slightly from their abnormally low autumn levels, particularly for barrel cheese. Pipeline stocks reportedly were very large last fall. Trimming these holdings has helped cheese prices a little but working stocks may remain relatively large. Process cheese sales, aided by fast-food promotions, have been strong this winter.

Butter prices briefly fell around yearend but bounced back to \$1.25 to 1.35 per pound. Sales of milkfat products have remained brisk, and most of the "extra" yearend butter production evidently was needed to replenish depleted pipeline stocks. Meanwhile, prices of nonfat dry milk remain anchored to the support purchase price.

Wholesale product prices are not expected to change much over the next few months., although uncertainties for both demand and supply may keep prices variable. Milk production probably will be adequate to meet the market call until users start to build stocks for later needs. Because seasonal building of cheese stocks was generally excessive last year, it may well be later and smaller this year. Butter prices are projected to post seasonal increases as the tight summer season nears, joined by rises in cheese prices during the second half. Seasonal rises are expected to be moderate and dependent on the softness in milk production and the strength in the economy.

Milk prices in 2001 are likely to recover only slightly from last year's low. Farm milk prices currently are somewhat above the very low levels of a year ago but are expected to run near a year earlier during the spring and summer. Seasonal rises are projected to lift autumn prices above a year earlier. For the year, the average price of all milk is expected to rise about a half-dollar per cwt. The gap between the value of milk for butter-powder and for cheese probably will stay wide.

Milk prices received by farmers fell to an average \$12.34 per cwt in 2000, down \$2 from 1999 and more than \$3 from the 1998 record. Last year's price was the lowest since 1991, as even strong demand was swamped by jumps in milk production. Areas dependent on cheese were particularly hard hit, with the Federal order price for milk used in cheese averaging below \$10 per cwt for the first time since the seventies.

The year of 2001 is not expected to see major recovery in prices of milk and dairy products. However, it is expected to be a year when milk production slows, demand continues to expand, and the stage is set for stronger prices in the years to come.

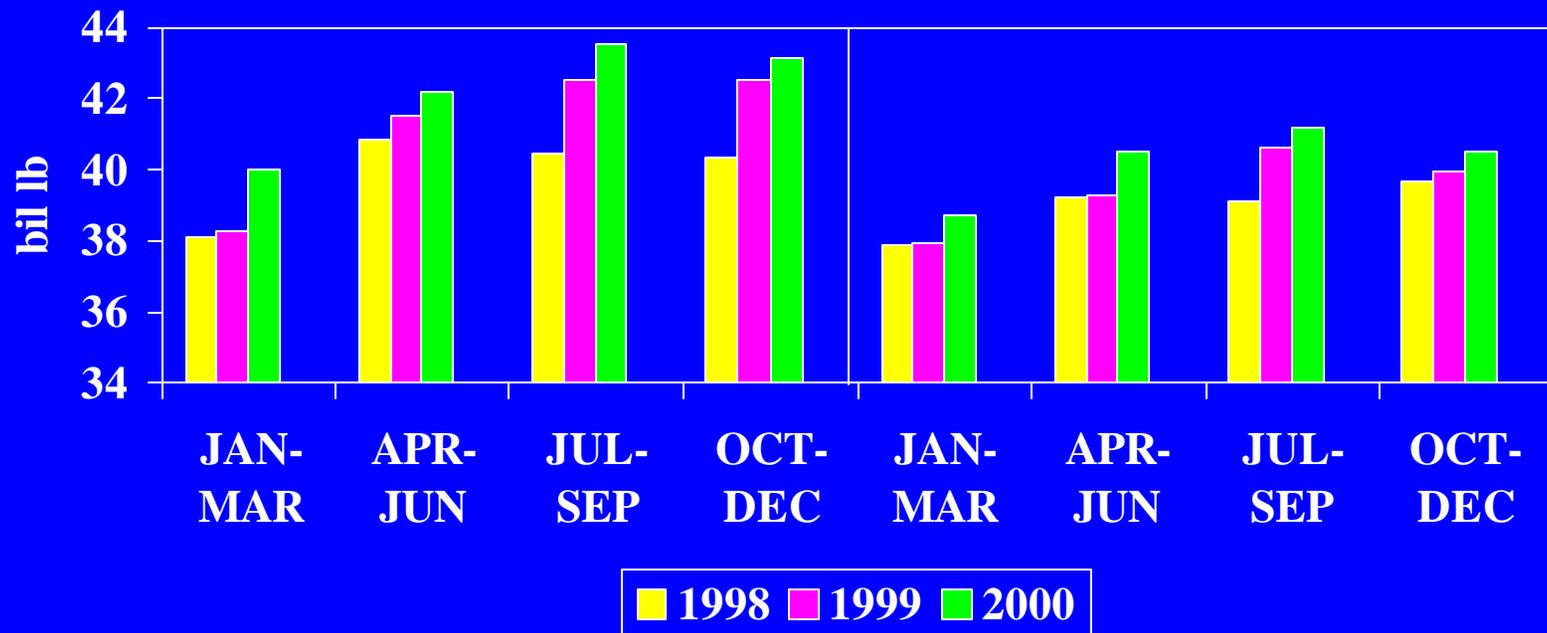
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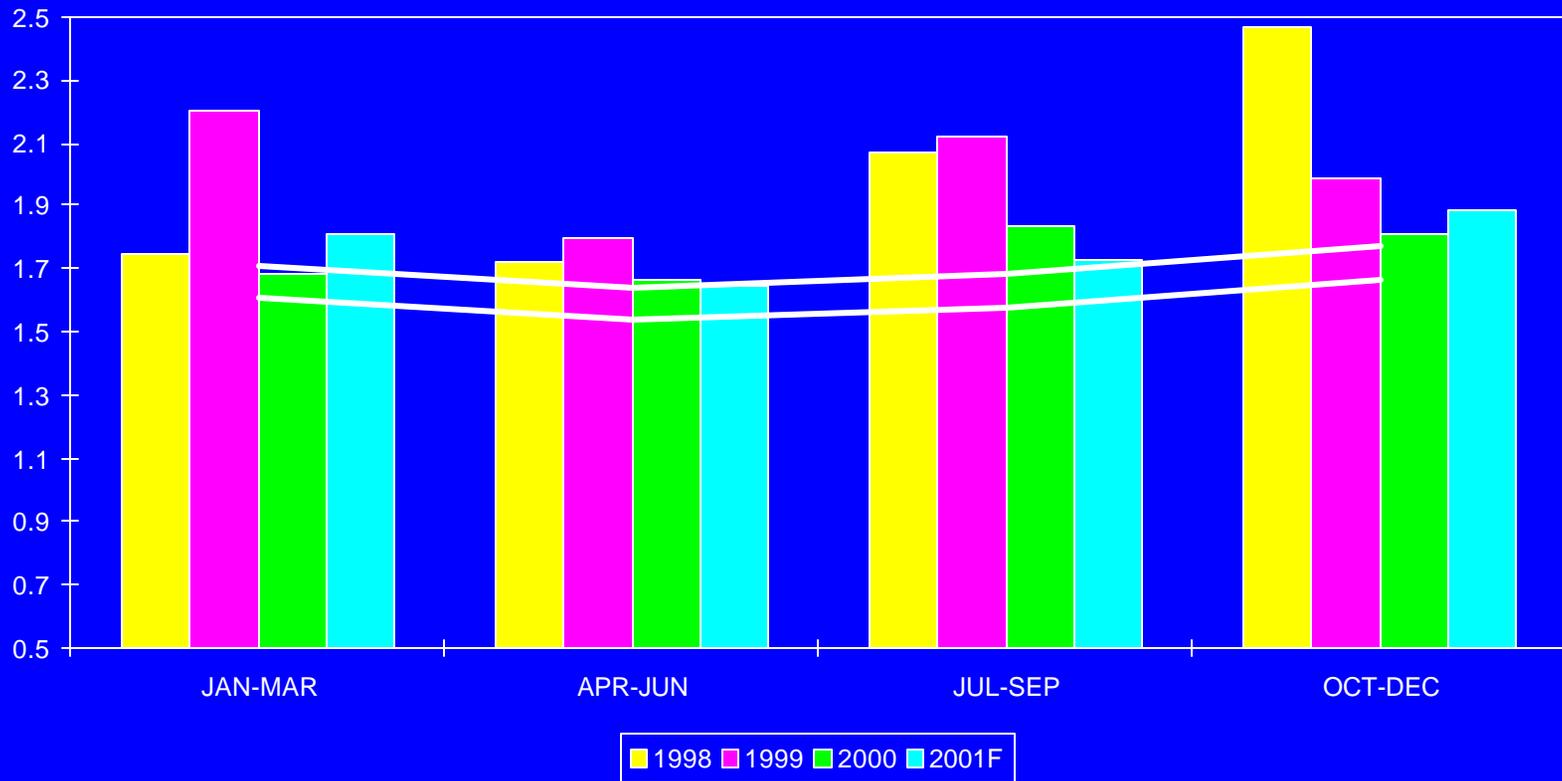
# Commercial use, milk equiv.

milkfat basis

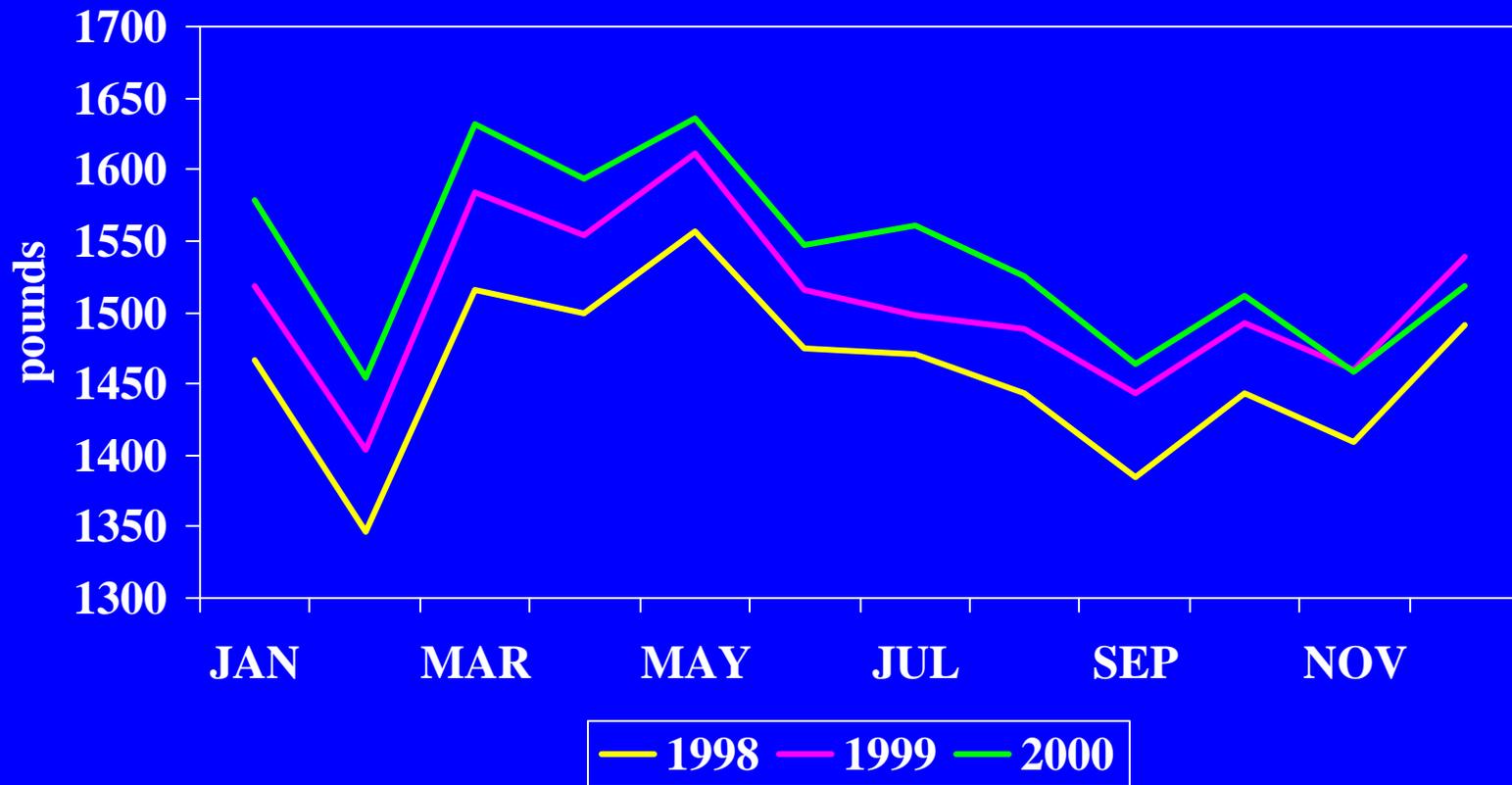
skim solids basis



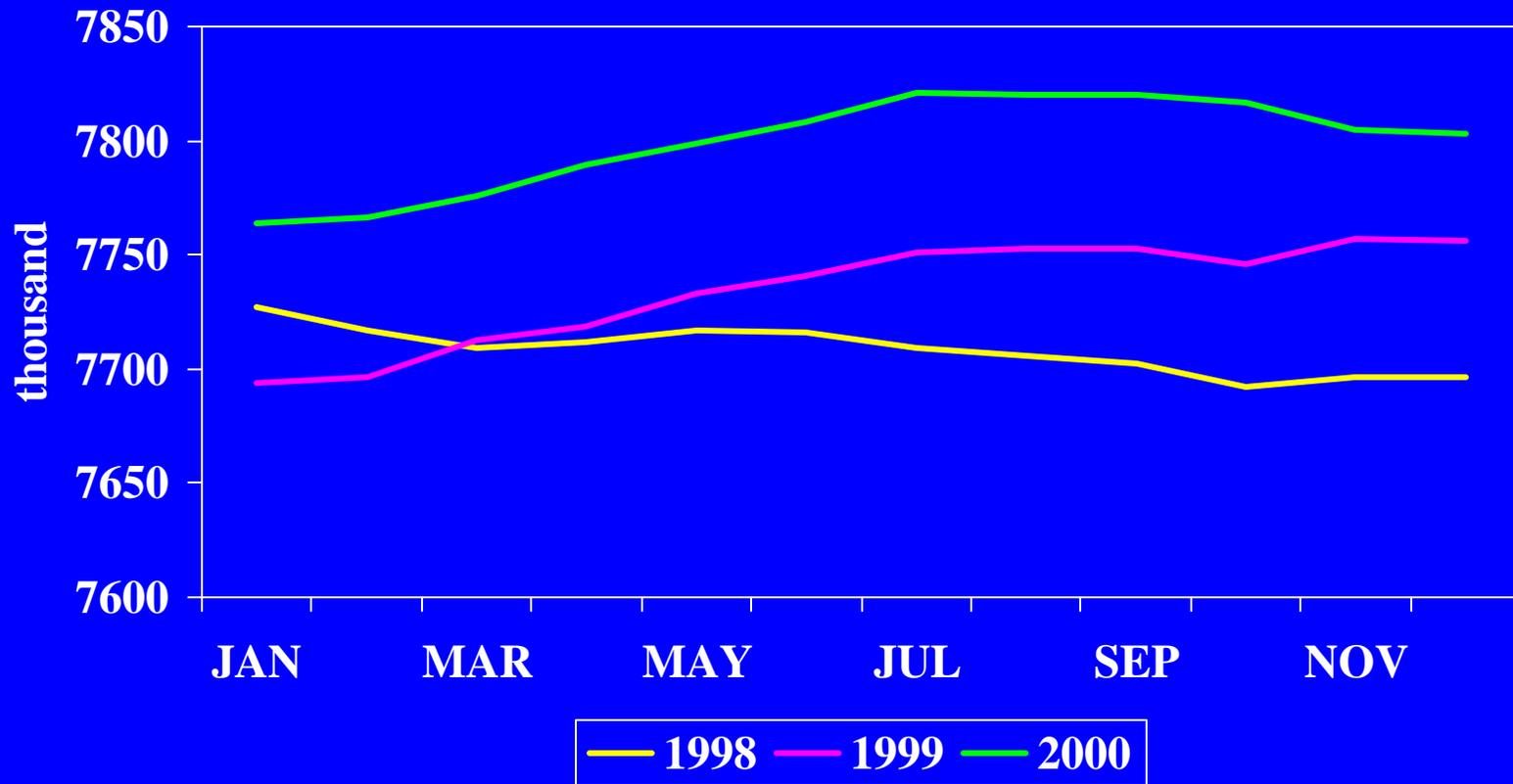
# Milk-feed price ratio



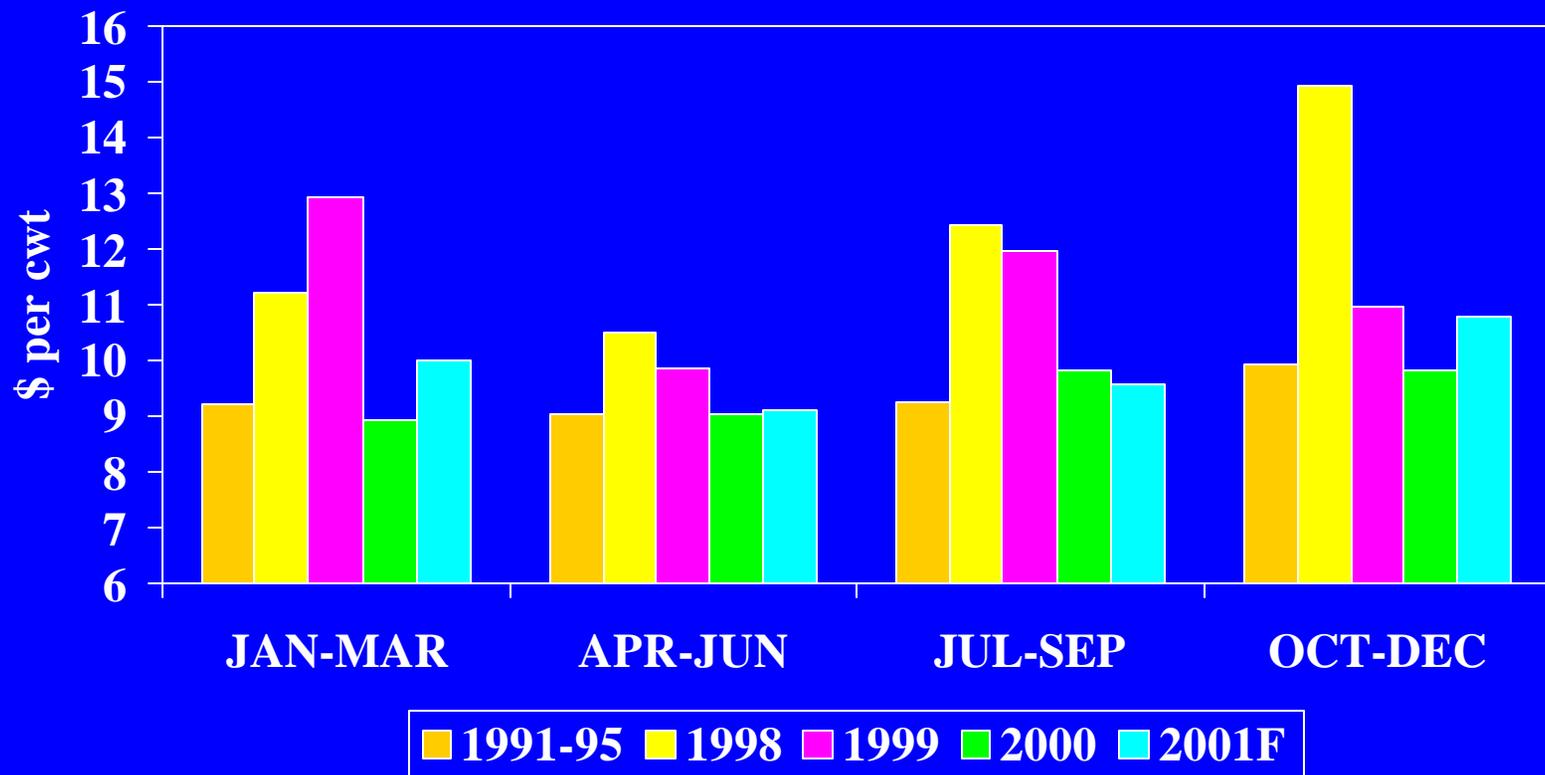
# Milk per cow, 20 States



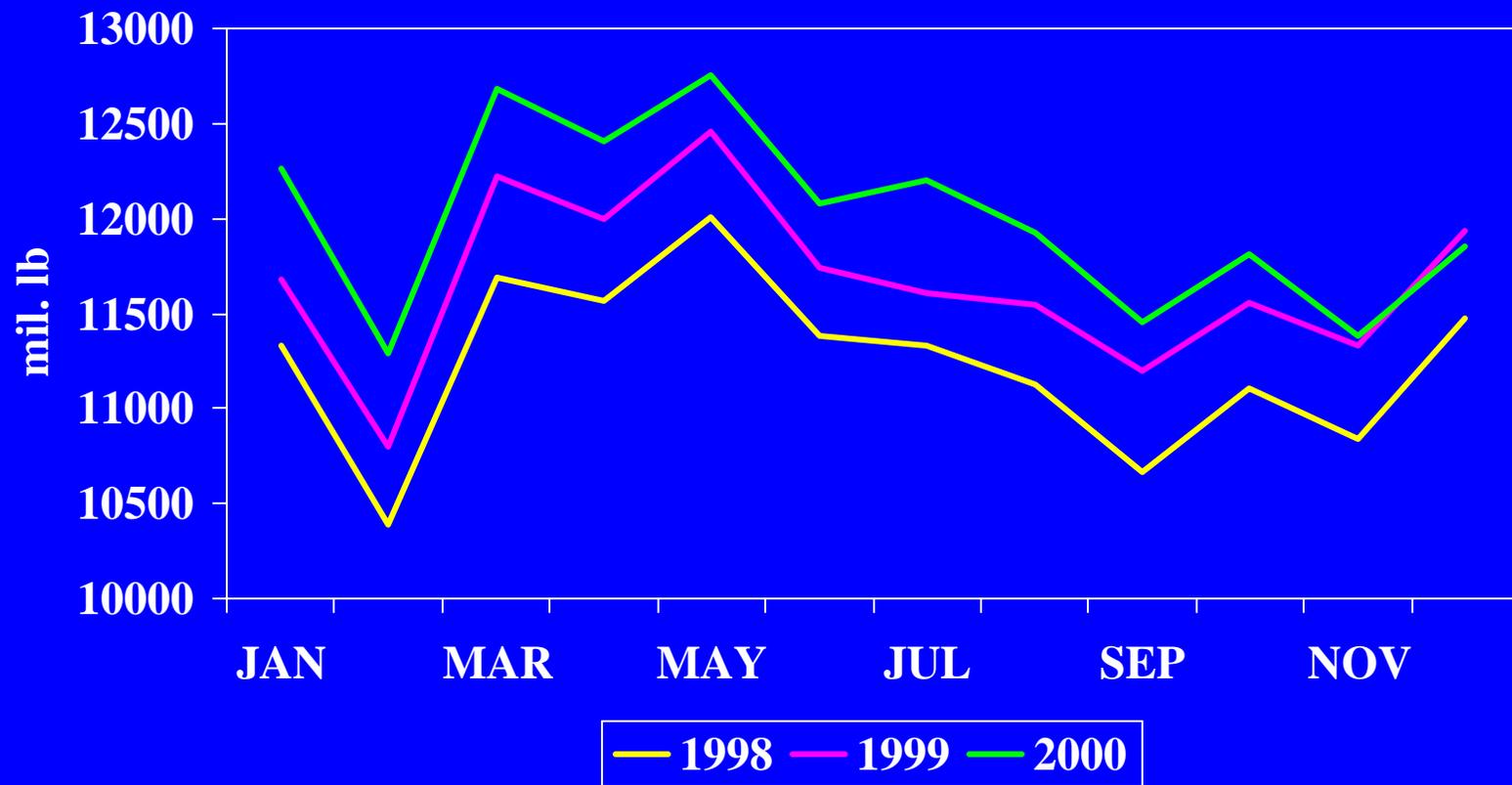
# Milk cow numbers, 20 States



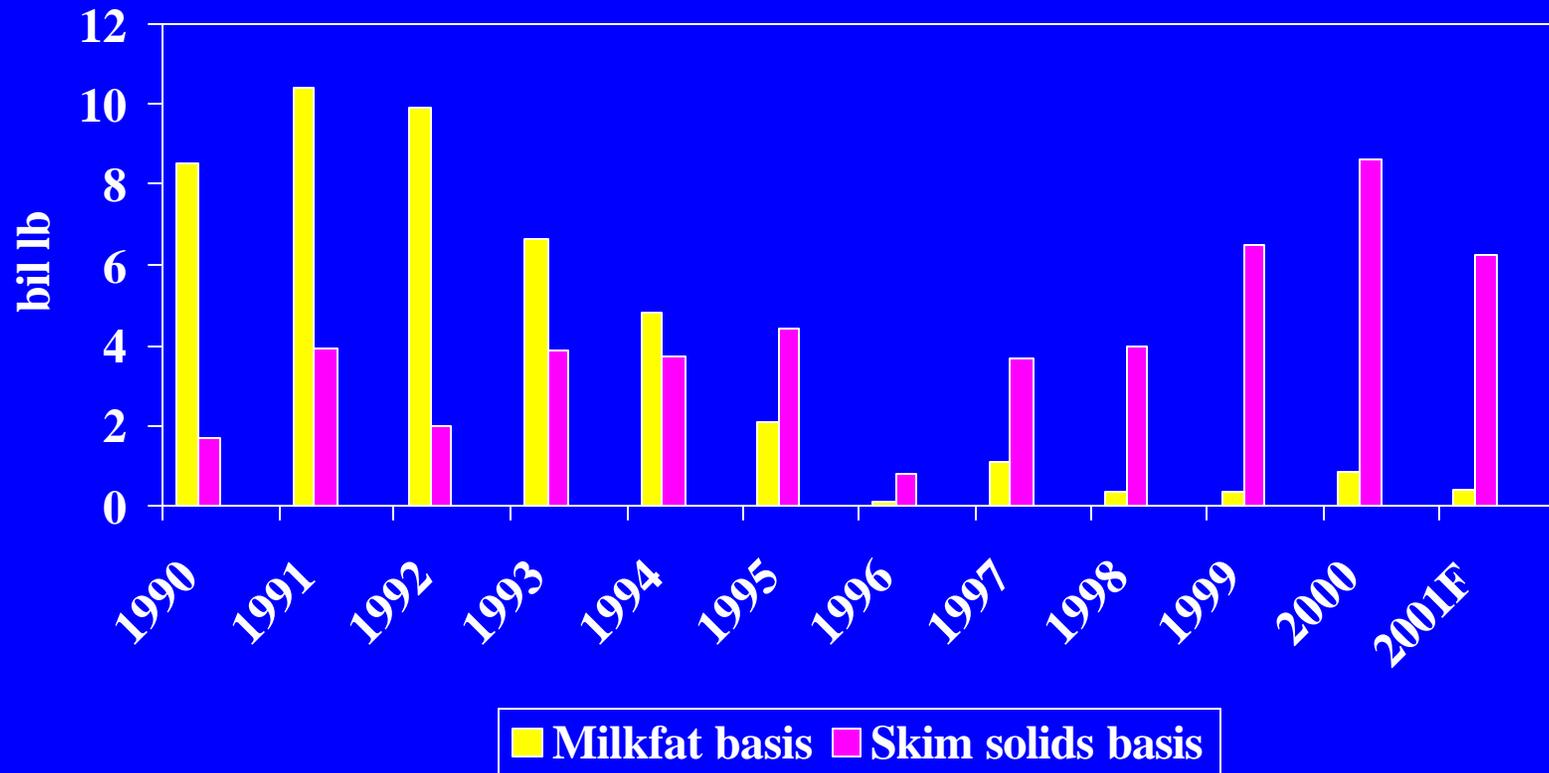
# Returns over concentrate costs

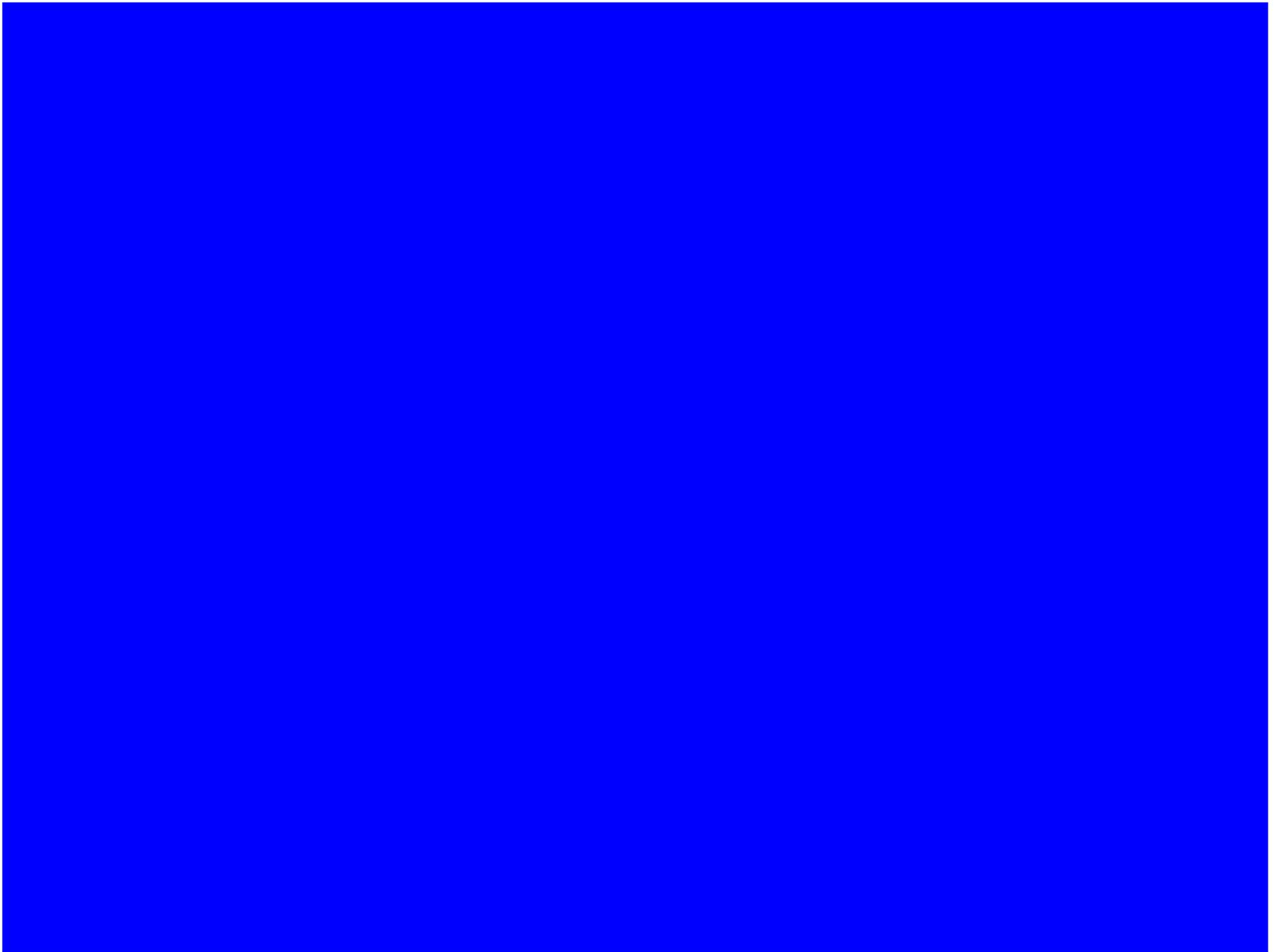


# Milk production, 20 States



# CCC net removals

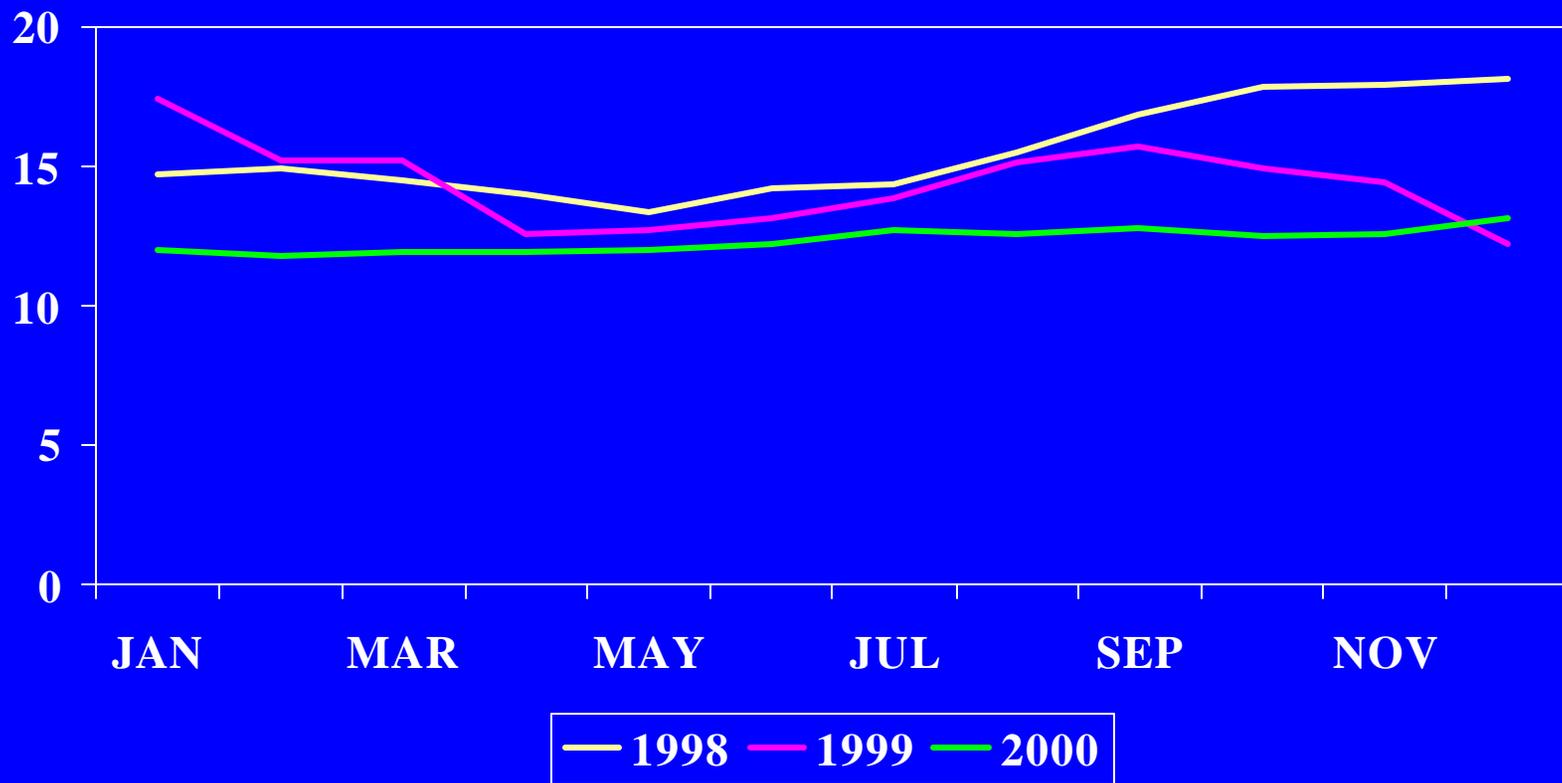




# Manufacturing milk prices



# All milk price



# Dairy in 2001

- Demand growth to ease only slightly.
- Production to be about the same.
- Milkfat markets still tight.
- Skim solids surplus smaller but still large.
- Price recovery modest in 2001 BUT
- Stage set for larger 2002 recovery.