FEDERAL RESERVE BANK OF CHICAGO

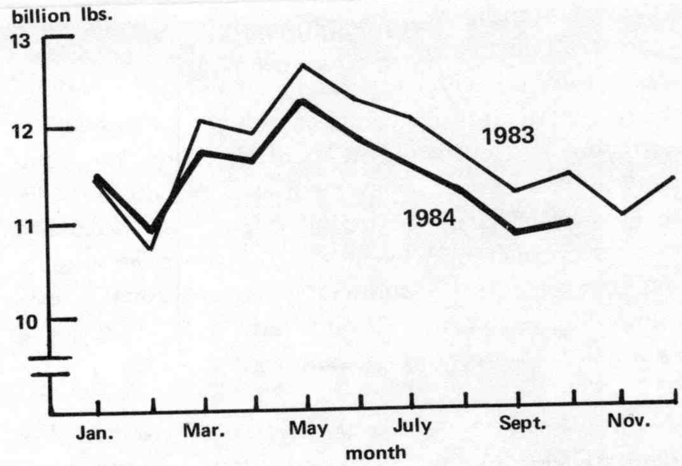
AGRICULTURAL LETTER

ISSN 0002 - 1512

November 23, 1984 Number 1643

MILK PRODUCTION, after five consecutive annual increases, will record a decline in 1984. During the first ten months of this year, milk production fell 2.6 percent below the year-ago level. For the year, production will be down about 3 percent. The decline is attributable to the paid diversion program and to lower milk prices and higher feed costs for dairy producers. The cut in production has coincided with a rise in commercial disappearance. As a result, the amount of dairy products that the federal government has had to purchase in order to maintain the support price of milk has declined sharply from the abnormally high levels of a year ago.

U.S. milk production, 1983-1984
(billion pounds)



The decline in milk production this year reflects a drop in both the number of dairy cows on farms and output per cow. Dairy cow numbers have declined almost continuously throughout the year, and in October were down 2.9 percent from a year earlier. Moreover, output per cow, after rising slightly during the first three months of the year, has since lagged year-ago levels, registering a 1.4 percent decline in October.

In District states, the downtrend in milk production has been slightly less pronounced, falling only about 2 percent from last year's level through the first 10 months of the year. Milk output over this period was down 2 to 3 percent in Illinois, Indiana, and Michigan and down 6 percent in Iowa. In Wisconsin, the nation's largest milk-producing state, milk production was down only 1.2 percent through October.

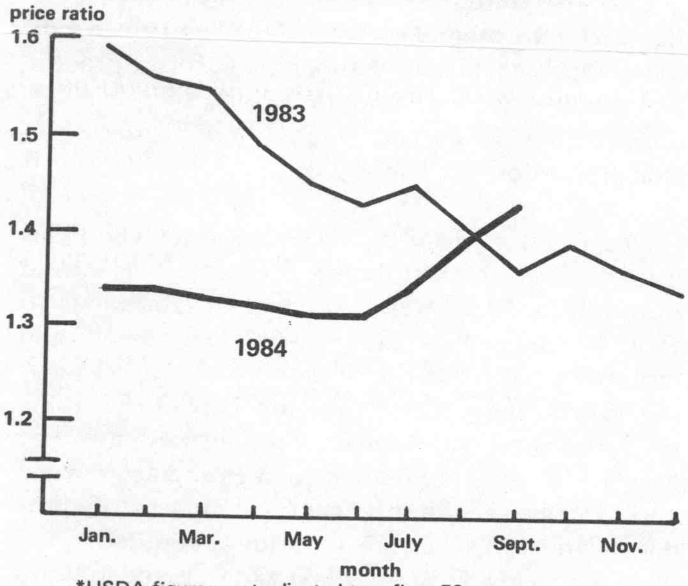
The cutback in milk production this year stems from a number of factors. However, the major determinant has been the paid diversion program for dairy farmers that was instituted on January 1 of this year. Under the program, participating dairy producers are paid $10 for every hundred pounds that milk marketings are reduced from their 1981/82 base marketings during the five-quarter life of the program. Funds for the diversion payments have been generated by a 50-cent-per-hundredweight deduction from the milk marketing receipts of all dairy farmers. About 12 percent of the nation's dairy farmers enrolled in the program, contracting to reduce their milk output by almost 23 percent from their base production. In District states, about 15 percent of the dairy producers enrolled in the program, agreeing to reduce milk output by 21.5 percent from their base. Sign-up for the program ranged from 11 percent in Indiana to 22 percent in Iowa. Although some of the production cuts were incurred prior to January, the paid diversion program likely accounts for most of the decline in milk production this year.

Payments to dairy producers for production cuts made through the first six months of the year totaled $335 million. That level of payments is equivalent to about 87 percent of the expected six-month payout, and represents payments on 84 percent of the contracts signed with the USDA. While this implies that some producers are behind on their production cuts, they have the full fifteen-month life of the program to come into compliance with their contracts. Some dairy producers who have taken the opportunity afforded by the diversion payments to ease their exit from the industry will likely accelerate their reductions near the end of the program. Dairy producers who do not reduce marketings to within 3 percent of the contracted amount will be subject to a penalty equal to the amount of the short-fall times the support price and must refund, with interest, any payments previously received.

Other factors exerting downward pressure on milk production this year have been milk prices and feed costs. Prices received by farmers for all milk marketed trended seasonally lower during the first half of the year before turning up in the third quarter. In addition, a reduction in the milk support price contributed to a year-to-year decline. For the entire nine-month period, dairy farmers received an average of $13.19 per hundredweight for all milk sold to plants, down from the $13.49 per hundredweight average of the same period a year ago. Effective prices received by dairy producers would show an even larger decline if adjusted to reflect the 50 cent per hundredweight producer assessment for defraying the costs of the paid diversion program. (Although a similar assessment was placed on milk receipts in 1983, it did not go into effect until April of last year.) Moreover, effective prices for many dairy farmers this year were further reduced by an additional assessment of up to 15 cents per hundredweight to support a national dairy promotional campaign.

At the same time that dairy farmers were incurring lower milk prices, the cost of feed jumped sharply. During the first six months of the year, the cost of 16 percent protein dairy feed ration averaged 11 percent higher than the year before. The trend in feed costs combined with declining milk prices lowered the milk/feed price

Milk/dairy feed price ratio, 1983-1984*



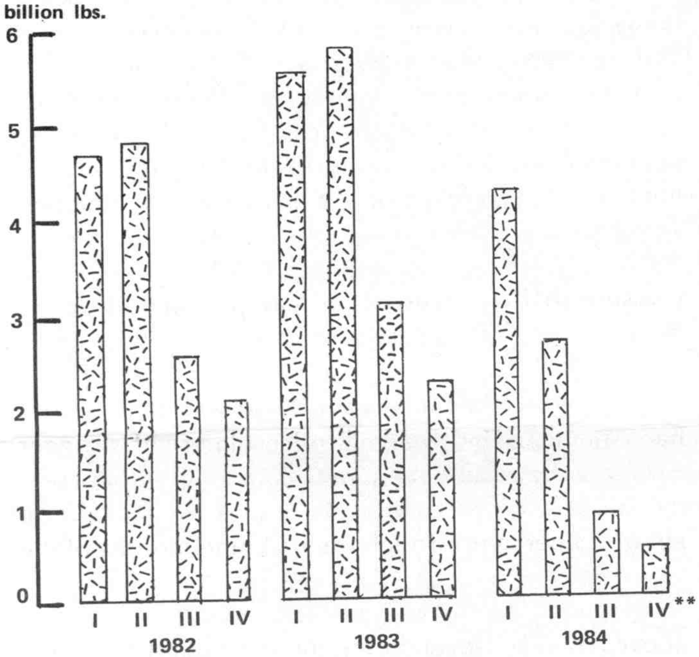
*USDA figures, not adjusted to reflect 50 cent assessments in effect during the period.

ratio, a rough measure of the profitability in producing milk, to a seven-year low in the first half. Third quarter feed costs, however, have averaged near last year's level and are likely to hold well below year-earlier levels during the final three months of the year. As a result of rising milk prices and falling feed costs, the milk/feed price ratio rose considerably during the third quarter, surpassing the year-ago level for the first time in September. The third quarter rise in the ratio and expected further increases this year contrast sharply with the downward pressure that was exerted on milk production by the price relationship earlier in the year.

Commercial disappearance of milk in all forms has been stimulated by lower milk prices along with stronger consumer demand. Preliminary data suggest that commercial disappearance on a milk equivalent basis was up about 4.5 percent through the first nine months of the year. Retail prices for all dairy products remained quite stable during the first two quarters of 1984 before rising above last year's level during the third quarter. During July and August dairy product prices averaged about 1 percent above a year ago, while September prices recorded a 2 percent year-to-year jump. Sales data through July, which do not reflect most of the recent rise in retail prices of dairy products, indicate that American cheese sales registered a year-to-year increase of more than 11 percent. Sales of other cheese varieties in the first seven months of 1984 showed a 6 percent gain from last year's level, while butter sales were up 10 percent. Sales of frozen dessert products rose almost 3 percent over the period. Nonfat dry milk and canned milk together rose about 2 percent, as a sharp jump in nonfat dry milk sales more than offset a large drop in canned milk sales. Commercial disappearance of fluid milk products registered a 1.6 percent increase from last year's level through July, with gains in skim and low fat milk offsetting a drop in sales of whole milk.

Net removals of manufactured dairy products by the government in 1984 are expected to decline for the first time since the late 1970s. In order to support milk prices, the Commodity Credit Corporation (CCC) purchases surplus manufactured dairy products. Between 1980 and 1983, while milk production jumped 9 percent, the milk equivalent of CCC purchases as a percent of total milk marketings nearly doubled, peaking at 12 percent of dairy farmers' marketings last year. Net removals of manufactured dairy products on a milk equivalent basis totaled a record 16.8 billion pounds in 1983, spurring the passage of the legislation that cut support prices and instituted the paid diversion program.

CCC net purchases of dairy products, 1982-1984*



*Milk equivalent, fat solids basis.
**Forecast.

The downtrend in milk production and a rise in commercial disappearance of milk in all forms this year has resulted in a substantial reduction in CCC purchases of manufactured dairy products. Through the first nine months of this year, government net purchases totaled 7.9 billion pounds on a milk equivalent basis, down 45.5 percent from the record high level of a year ago. Moreover, CCC net purchases as a percent of milk marketings during the first three quarters of the year dropped to about 8 percent, still quite large but down considerably from 13.9 percent a year earlier. Although the marked decline in net purchases has contributed to a lowering of stocks, government inventories of dairy products remain at very high levels. The milk equivalent of government stocks of dairy products stood at 16.4 billion pounds at the beginning of September, down from almost 19.5 billion pounds the previous year.

USDA forecasts indicate continued year-to-year declines in CCC net removals of manufactured dairy products during the final three months of this year. The latest USDA projection places fourth quarter milk production at 32.5 billion pounds, almost 4 percent below the year-ago level. Commercial use, however, is expected to strengthen with rising incomes and the national dairy product promotion campaign offsetting rising retail prices. As a result, net removals by the CCC, which usually decline seasonally during the fall, are expected to total only about 600 million pounds during the three-month period. That would hold net purchases for the year to about 8.5 billion pounds, compared to 16.8 billion pounds in 1983.

Despite the substantial reductions, government net removals of manufactured dairy products must be cut further to prevent additional reductions in the milk support price. The current legislation stipulates a 50 cent per hundredweight cut in the support price in April of next year if the Secretary of Agriculture determines that net CCC purchases are likely to exceed 6 billion pounds during the subsequent twelve months. Moreover, another 50 cent reduction can occur in July if net removals of surplus dairy products are expected to exceed 5 billion pounds during the following twelve-month period. If both of these reductions are instituted, the support price for milk would drop to $11.60 per hundredweight by next summer.

Current indicators suggest that the reductions in the milk support price are likely in 1985. Although the dairy herd is expected to show a 3 percent year-to-year decline in January, this year's culling of less productive cows and lower feed costs could result in greater output per cow next year. Moreover, the number of replacement heifers per 100 dairy cows was at a record 45.6 on July 1 of this year. The large inventory of heifers held for replacement this summer suggests that the number of milk cows on farms will increase with the expiration of the paid diversion program next spring. Current USDA projections of milk production in 1985 point to a 1 percent increase from this year's level.

An expected increase in milk output next year, despite continued strong demand, will likely lead to continued large CCC net removals and the April cut in the milk support price. This first cut in the support price, however, will merely offset the termination of the 50 cent per hundredweight assessment that funded the paid diversion program, holding the effective support price at its current level. While a cut in the support price, unlike a deduction from producers' marketing receipts, would contribute to greater commercial disappearance, it is not likely that it would be sufficient to lower projected CCC net removals to the level that would preclude a second 50 cent reduction in the milk support price in July. In light of these considerations, it appears that a continued excess supply of dairy products will likely lead to an $11.60 per hundredweight milk support price next summer.

Peter J. Heffernan

Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from: Prior period	Year ago	Two years ago
Prices received by farmers *(1977=100)*	October	138	– 0.7	+ 3	+ 8
Crops *(1977=100)*	October	138	+ 1.5	+ 4	+22
Corn *($ per bu.)*	October	2.72	– 6.2	–14	+37
Oats *($ per bu.)*	October	1.62	– 3.0	0	+23
Soybeans *($ per bu.)*	October	6.04	– 0.8	–24	+19
Wheat *($ per bu.)*	October	3.42	– 0.3	– 5	0
Livestock and products *(1977=100)*	October	138	– 2.1	+ 2	– 3
Barrows and gilts *($ per cwt.)*	October	43.80	– 7.0	+ 7	–22
Steers and heifers *($ per cwt.)*	October	59.40	– 1.5	+ 5	+ 2
Milk *($ per cwt.)*	October	13.90	+ 2.2	+ 1	+ 1
Eggs *(¢ per doz.)*	October	55.3	– 5.3	–19	– 5
Prices paid by farmers *(1977=100)*	October	164	– 0.6	+ 2	+ 4
Production items	October	153	– 0.6	0	+ 3
Feed	October	125	– 3.1	–11	+10
Feeder livestock	October	151	+ 1.3	+ 3	– 8
Fuels and energy	October	201	+ 0.5	– 2	– 5
Producer prices *(1967=100)*	October	292	+ 0.6	+ 1	+ 3
Agricultural machinery and equipment	October	338	0	+ 3	+ 6
Fertilizer materials	October	234	0	+ 6	– 1
Agricultural chemicals	October	457	– 0.2	0	– 2
Consumer prices *(1967=100)*	October	315	+ 0.3	+ 4	+ 7
Food	October	304	+ 0.1	+ 4	+ 6
Production or stocks					
Corn stocks *(mil. bu.)*	October 1	722	N.A.	–77	–67
Soybean stocks *(mil. bu.)*	September 1	175	N.A.	–49	–31
Beef production *(bil. lbs.)*	October	2.18	+14.6	+ 6	N.A.
Pork production *(bil. lbs.)*	October	1.41	+23.9	+ 2	N.A.
Milk production *(bil. lbs.)*	October	10.9	+ 1.1	– 4	N.A.

N.A. Not applicable

AGRICULTURAL LETTER

AGRICULTURAL LETTER
FEDERAL RESERVE BANK
OF CHICAGO
Public Information Center
P.O. Box 834
Chicago, Illinois 60690

Tel no. (312) 322-5111

PRESORTED FIRST CLASS

CHICAGO ILL. DEC-7'84 U.S. POSTAGE 17 P.B. METER 683000

AG001
GRADUATE STUDENTS
UNIV. OF MINNESOTA, DEPT. OF AGRICULT.
217A CLASSROOM OFFICE BLDG.
1994 BUFORD AVE.
ST. PAUL, MN 55108