



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

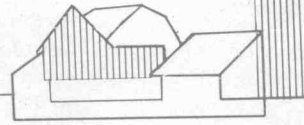
**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

FRB CHICAGO



**AGRICULTURAL LETTER**

FEDERAL RESERVE BANK OF CHICAGO

December 20, 1985

Number 1671

### Milk production at a record level in 1985

U.S. milk production, after falling in 1984 for the first time in six years, has rebounded sharply this year to a new high. The increase has boosted milk production almost 6 percent above last year's output, which was reduced by the paid diversion program for dairy producers, and about 2.5 percent above the previous high recorded in 1983. Moreover, the renewed gains in production this year have far outstripped commercial disappearance of milk, contributing to a sharp increase in government purchases of manufactured dairy products to support prices. While prospects for a 1986 freeze in the support price offers little chance of correcting the supply and demand imbalance through market means, current legislation calls for instituting a whole-herd buyout program that would pay some dairy farmers to completely shut down their operations.

U.S. milk production through the course of this year has outpaced 1984 production by a growing margin. Following a slow start during the first three months of the year when the winding down of the paid diversion program held output 1 percent below a year earlier, milk production surged during the spring and summer months. Monthly milk output registered steadily increasing year-to-year gains from 3 percent in April to 11 percent in September. During the following two months the increase in milk production plateaued at 10 percent above the year-earlier level. Another year-to-year gain of 10 percent in December would boost 1985 milk production to the current USDA estimate of 143.2 billion pounds, up from 135.4 billion pounds last year and the previous record of 139.7 billion pounds set in 1983.

Milk production in District states has followed a course similar to the national trend. After lagging the year-earlier pace through the early months of 1985, milk production picked up during the spring, registering progressively larger gains. By November, milk output of the five District states was almost 10 percent above the previous year's level. Production in Wisconsin, the nation's leading milk-producing state, registered a 9.6 percent year-to-year gain. Increases in the other District states ranged from 8.2 percent in Michigan to 13 percent in Iowa. For the first 11 months of 1985, milk production in the five-state group was almost 6 percent higher than during the comparable period of a year ago, with the largest gains recorded in Illinois and Wisconsin.

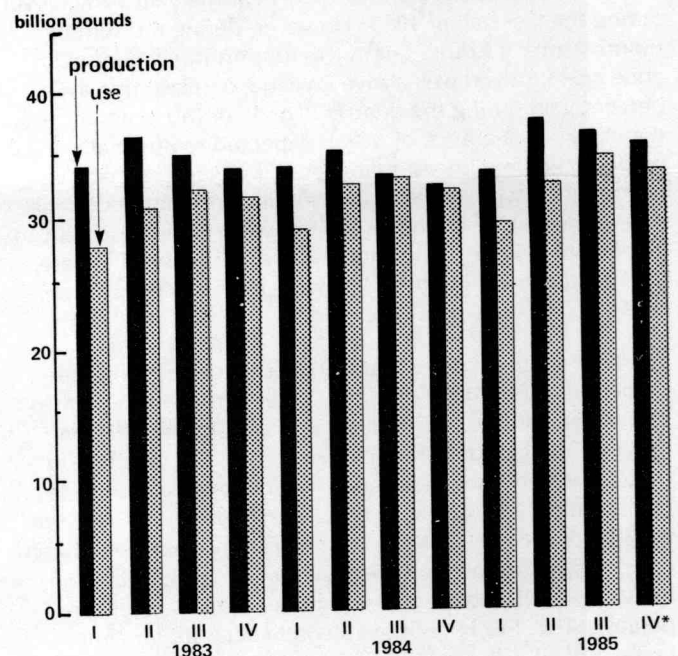
The rise in milk output this year is accounted for by an increase in dairy cows and greater output per cow. After holding below the year-earlier level through March, the expiration of the diversion program triggered a steady increase in the size of the dairy herd. By November, dairy cow numbers had reached almost 11.2 million head, more than 3 percent above the November 1984 level. Moreover, year-over-year

gains in milk production per cow steadily grew through the first 9 months of 1985, posting a 7.6 percent gain over a year earlier in September. During October and November, milk output per cow remained more than 6 percent above year-ago levels.

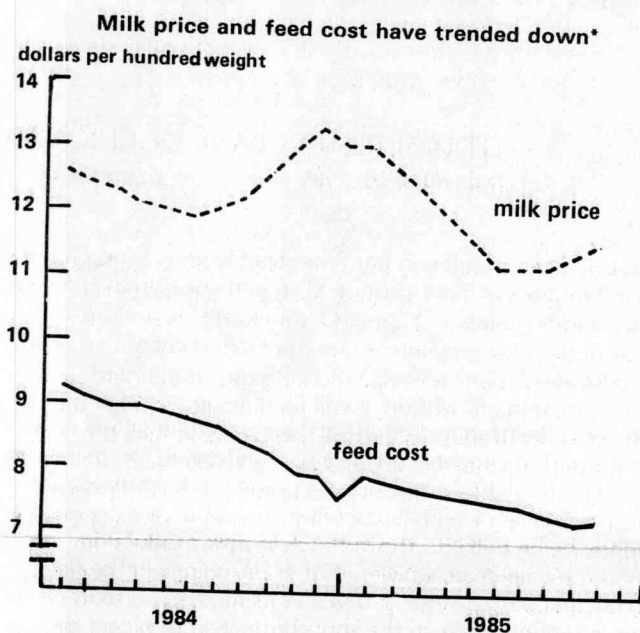
The rapid gains in output are attributable to low feed costs that boosted concentrate feeding. In October the milk/feed price ratio, which is an indicator of the profitability in milk production, showed a 2 percent gain over a year earlier after adjusting for deductions that were in effect during 1984 to fund the paid diversion program. This indicates that falling feed costs and the end of deductions have more than offset lower milk prices resulting from the 1985 cuts in the support price. With this year's huge harvest further lowering feed prices, the milk/feed price ratio is likely to remain favorable for high levels of concentrate feeding through most of 1986.

The sharp jump in milk production since the expiration of the paid diversion program underlines what little effect it had on correcting the oversupply situation. While in effect, the program did curtail production by lowering the number of dairy cows and contributing to reduced output per cow. However, it soon became apparent that dairy farmers were poised to expand milk production immediately following the program. By mid-year 1984, the number of replacement heifers reached a record 45.8 per hundred dairy cows in the herd. Moreover,

**Milk production and use rose in 1985**



\*Estimate  
SOURCE: USDA



\* All milk price unadjusted for deductions, and price of 16% dairy ration.

SOURCE: USDA.

USDA estimates suggest that almost 36 percent of these replacement heifers entered the dairy herd during the first half of 1985, up from a 33 percent entry rate a year earlier. This influx of new animals, following the culling of the herd in 1984, and the very favorable feed prices that are expected to continue at least through most of 1986 have set the stage for continued record large supplies in the face of moderate demand.

Following an increase of more than 3 percent in 1984, commercial disappearance of milk held near the year-earlier level during the first half of 1985. However, during the summer months, after a further cut in the support price, disappearance again moved well above a year ago, registering a 4.7 percent gain during the quarter. For all of this year, commercial disappearance of milk is expected to be up about 2.2 percent. Preliminary estimates by USDA suggest that sales of American-type cheese, canned milk, and nonfat dry milk during the first nine months of 1985 were down 1 percent to 14 percent from a year earlier, while other types of cheese, fluid products, and butter sales were up 1 percent to 5 percent.

With the sharp increase in milk output far outpacing the moderate gain in dairy product use, government purchases of manufactured dairy products have again soared. Commodity Credit Corporation net purchases, the mechanism through which the government supports milk prices, were equivalent to 11.7 billion pounds of milk during the first ten months of 1985, well above the 8.6 billion pounds purchased during the entire previous year. For all of 1985, USDA estimates that CCC net purchases will approach 13.5 billion pounds. That level of removals would account for almost 9.5 percent of all milk marketed by dairy farmers in 1985, up from 6.5 a year earlier but still below the 12.2 percent of marketings purchased in 1983.

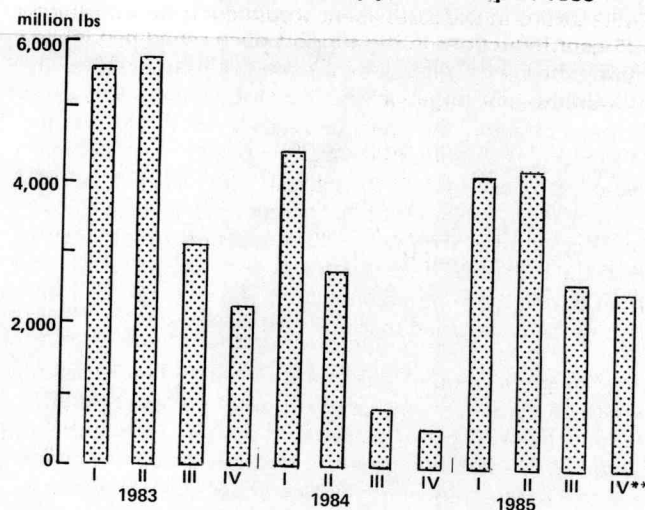
Nevertheless, government stocks of dairy products at the start of the fourth quarter were down sharply. Stocks were drawn down by about a third during the last half of 1984 and the first half of this year when use in various government programs far outpaced the substantially lower volume of purchases. Since that time, government inventories have been fairly level, but are expected to expand in the coming months. USDA inventories on October 1 contained the equivalent of 10.3 billion pounds of milk. In addition to the government holdings, commercial stocks of dairy products on that date were equivalent to 5.2 billion pounds of milk, a 4 percent drop from a year earlier.

Initial indications for 1986 had pointed to a continuation of the trends apparent in 1985. USDA estimates had placed milk production near 148 billion pounds for 1986, a new record high, while commercial use was expected to approach 132 billion pounds. As a result, initial USDA projections had CCC net purchases near 16 billion pounds. These estimates were built around the assumptions that the milk support price of \$11.60 per hundredweight would be unchanged from the current level, and no diversion or herd buyout programs would be implemented in 1986.

However, the recently enacted farm bill probably renders these estimates obsolete. Under the new dairy program, the support price of milk in 1986 will be frozen at the current level of \$11.60 per hundredweight. In January and again in October of 1987, the Secretary of Agriculture is required to implement reductions of 25 cents in the support price of milk. Beginning in January of 1988, and annually thereafter through 1990, the Secretary would be required to make additional cuts of 50 cents for any year in which government purchases were projected to exceed 5 billion pounds.

In an attempt to control the high level of production expected at the current support price and to significantly affect the longer run production capacity of the industry, the legislation calls for the implementation of a whole-herd buyout program. Under this voluntary program, which is to extend

**CCC net purchases of dairy products up in 1985\***



\* Milk equivalent basis

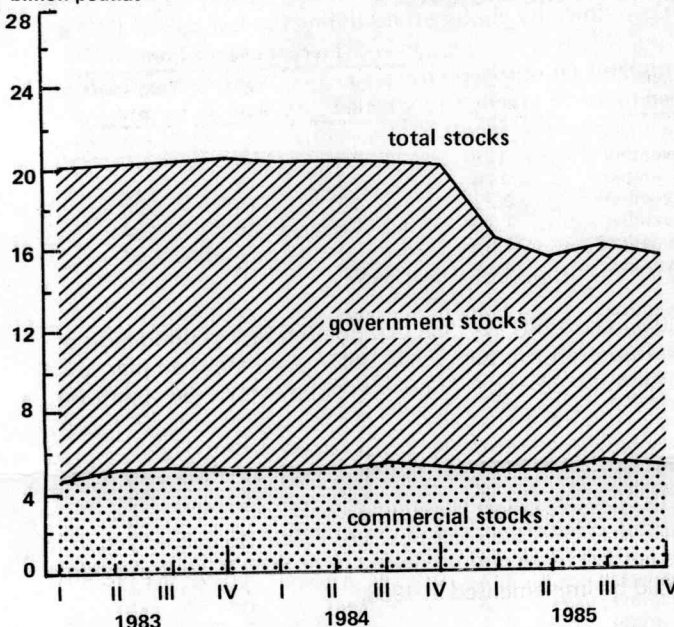
\*\* Estimate

SOURCE: USDA



### Inventories of dairy products have fallen\*

billion pounds



\* Beginning stocks, milk equivalent.  
SOURCE: USDA.

for eighteen months, the government will consider bids from dairy producers that would specify the amount of remuneration they would accept in exchange for taking their entire dairy herds out of production. Producers whose bids are accepted would be required to slaughter or export their entire dairy herd—including any heifers and bulls—and sign a contract stating that they would not resume dairying for three to five years.

The buyout program would be funded by assessments on the marketings of the remaining producers. The assessment in 1986 would be 40 cents per hundred pounds of milk marketed, which would lower the effective support price for the year to \$11.20 per hundredweight. The assessment would fall to 25 cents per hundredweight through the first nine months of 1987, and then terminate in October of that year. The 1987 alterations in the assessment would coincide with the two 25-cent reductions in the support price scheduled for that year, cutting the effective milk support price to \$11.10 per hundredweight for all of 1987.

Drafters of the new dairy program hoped that the whole-herd buyout provision would attract sufficient participation by dairy producers to substantially reduce the excess capacity now evident in the nation's 11-million-head dairy herd. Some analysts have suggested that the program might remove some 600,000 to 800,000 head of dairy cows during the eighteen-month life of the program. If that is the case, the increased cow slaughter would place additional pressures on the livestock industry, which has recently been recovering from the effects of the PIK program and a period of depressed livestock prices due to record meat production. To offset the increase in meat production and resulting downward pressure on livestock prices that might result from the program, the legislation authorizes the Secretary of Agriculture to purchase an additional 400 million pounds of red meat during the eighteen-month buyout program. The additional meat

purchases by the government would be used for export or in domestic food donation programs.

The program will likely result in some cutback in milk output and in government purchases of excess manufactured dairy products in the short term. The assessments on the output of remaining dairy farmers, by lowering the effective support price, could lessen the incentive to produce milk. However, the assessment, unlike a cut in the support price, will not stimulate consumption of milk and milk products, which would further limit government expenditures.

Until final regulations for implementing the whole-herd buyout program are written, it will be difficult to judge the program's effectiveness in cutting the excess in milk production. If projections of a 600,000 to 800,000 head reduction in the dairy herd prove accurate, it would represent a drop of 5 percent to 7 percent in the number of dairy cows currently being milked. The cutback in milk production, however, will likely be smaller. Other provisions in the new farm bill that freeze target prices and lower loan support prices for grains could, in the short term, lead to bigger reductions in dairy feed costs than will be the case for effective milk prices. If that is the case, the output of nonparticipating dairy farmers will likely increase through herd expansion and increased output per cow. Moreover, dairy farmers that participate in the buyout program will likely be less efficient than their counterparts, further strengthening prospects for continued increases in output per cow.

The longer range effectiveness of the bill in curtailing the excess productive capacity of the dairy industry hinges more on the prospective cuts in the milk support price scheduled for 1988 to 1990. While the whole-herd buyout program would likely cut production in the short term and, due to the slaughter of replacement heifers, slow the rate of increase following its termination, it would not permanently affect the industry's capacity. What is required to strike a long-term balance between supply and demand is a price that reflects market conditions. The proposed legislation, however, does not address this reality until the last few years of the decade. Even then, annual 50 cent per hundredweight reductions in the support price, if offset by technological advances in productivity and by continued large feed crop harvests and resulting low production costs, may prove insufficient in correcting the serious oversupply situation in the dairy industry.

Peter J. Heffernan

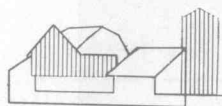
AGRICULTURAL LETTER (ISSN 0002-1512) is published bi-weekly by the Research Department of the Federal Reserve Bank of Chicago. It is prepared by Gary L. Benjamin, economic adviser and vice-president, Peter J. Heffernan, economist, and members of the Bank's Research Department, and is distributed free of charge by the Bank's Public Information Center. The information used in the preparation of this publication is obtained from sources considered reliable, but its use does not constitute an endorsement of its accuracy or intent by the Federal Reserve Bank of Chicago.

To subscribe, please write or telephone:  
Public Information Center  
Federal Reserve Bank of Chicago  
P.O. Box 834  
Chicago, IL 60690  
Tel.no. (312) 322-5111

## Selected Agricultural Economic Indicators

	Latest period	Value	Percent change from		
			Prior period	Year ago	Two years ago
<b>Prices received by farmers (1977=100)</b>					
Crops (1977=100)	November	126	2.4	-7	-7
Corn (\$per bu.)	November	114	2.7	-12	-16
Oats (\$per bu.)	November	2.22	4.7	-13	-30
Soybeans (\$per bu.)	November	1.10	1.9	-35	-34
Wheat (\$per bu.)	November	4.92	1.4	-18	-37
	November	3.11	0.6	-10	-12
<b>Livestock and products (1977=100)</b>					
Barrows and gilts (\$per cwt.)	November	138	3.0	-4	1
Steers and heifers (\$per cwt.)	November	43.00	-2.1	-10	12
Milk (\$per cwt.)	November	60.30	6.5	-1	6
Eggs (¢per doz.)	November	12.70	0.8	-11	-9
	November	66.2	4.3	7	-13
<b>Prices paid by farmers (1977=100)</b>					
Production items	November	163	0.6	-1	1
Feed	November	149	0.7	-3	-3
Feeder livestock	November	110	1.9	-11	-23
Fuels and energy	November	151	2.0	-2	0
	November	205	1.5	3	1
<b>Producer Prices (1967=100)</b>					
Agricultural machinery and equipment	November	297	0.6	2	3
Fertilizer materials	November	338	0.1	0	2
Agricultural chemicals	November	227	-0.1	-2	-3
	November	460	0.5	1	0
<b>Consumer prices (1967=100)</b>					
Food	November	327	0.3	4	8
	November	311	0.4	2	6
<b>Production or stocks</b>					
Corn stocks (mil. bu.)	October 1	1,379	N.A.	91	-56
Soybean stocks (mil. bu.)	September 1	318	N.A.	81	-8
Beef production (bil. lbs.)	October	2.11	6.2	-3	2
Pork production (bil. lbs.)	October	1.36	13.5	-4	-2
Milk production (bil. lbs.)	October	12.0	0.7	10	6

N.A. Not applicable



### AGRICULTURAL LETTER

FEDERAL RESERVE BANK OF CHICAGO

Public Information Center

P.O. Box 834

Chicago, Illinois 60690

(312) 322-5112

PRESENTED FIRST CLASS



AG0001  
 LOUISE LETNES, LIBRARIAN  
 DEPT. OF AGRIC. & APPLIED ECON.  
 231 CLASSROOM OFFICE BUILDING  
 1444 BUFORD AVENUE  
 ST. PAUL, MN 55108