

Dairy Production

CROP REPORTING BOARD

AGRICULTURAL MARKETING SERVICE - U.S. DEPT. OF AGRICULTURE

Washington, D. C.

December 11, 1953

This report includes milk production and related information released in CROP PRODUCTION, together with selected special summaries brought together for those interested primarily in dairy statistics.

SUMMARY

A new high level of off-season milk flow was recorded this year as production passed the seasonal low point and again turned upward. In November, farm output aided by mild weather, liberal feeding, and an increasing proportion of cows milked totaled 8,255 million pounds, surpassing last year's previous high by $4\frac{1}{2}$ percent. In the first 11 months of 1953, 111.4 billion pounds of milk was produced and the total for the year appears likely to at least equal the 1945 all-time high of 119.8 billion pounds. In crop reporters' herds, milk production per cow on December 1 exceeded last year by 4 percent and set a new high for the date. Data on percentage of milk cows being milked and monthly freshenings in reporters' herds suggest that farmers are making adjustments toward heavier winter milk production.

Feeding of grain and other concentrates to milk cows continued at record rates for the season, with crop correspondents reporting 5.66 pounds per cow fed on December 1, about 12 percent more than average. The rate of feeding was at or near record highs in all major regions. The value of concentrate rations fed to milk cows has been declining and in November was the lowest for the month in three years. The milk-feed price ratio was slightly more favorable than average for November while the butterfat-feed price ratio, although improved, continued well below average.

Table 1.—MONTHLY MILK PRODUCTION ON FARMS, UNITED STATES, 1942-51 AV., 1952 AND 1953

Month	Monthly total			Percent	Daily average per capita		
	Average 1942-51	1952	1953		Average 1942-51	1952	1953
	Million pounds				Pounds		
Jan.	8,298	8,151	8,706	107	1.88	1.69	1.77
Feb.	8,130	8,151	8,533	1/105	2.02	1.80	1.92
Mar.	9,610	9,421	10,100	107	2.17	1.94	2.05
Apr.	10,389	10,134	10,854	107	2.42	2.16	2.28
May	12,338	12,056	12,610	105	2.78	2.48	2.56
June	12,393	11,879	12,349	104	2.88	2.52	2.58
July	11,660	11,017	11,508	104	2.62	2.26	2.33
Aug.	10,593	10,238	10,494	103	2.38	2.10	2.12
Sept.	9,185	9,126	9,219	101	2.13	1.93	1.92
Oct.	8,555	8,664	8,779	101	1.92	1.77	1.77
Nov.	7,655	7,891	8,255	105	1.77	1.66	1.71
Dec.	7,908	8,389			1.76	1.71	
Year	116,713	115,117			2.23	2.00	

1/ Comparison of 28-day month in 1953 with 29-day month in 1952. On a daily average basis, February 1953 is 108 percent of 1952.

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A heavy off-season milk production was in evidence again this year as November output on United States farms totaled 8,255 million pounds, 4½ percent above last year's previous high for the month, and 8 percent above the 10-year average. Mild weather, liberal supplemental feeding, and a contraseasonal upturn in proportion of cows milked contributed to the record milk flow. Milk production per capita, at 1.71 pounds per day, was the second highest for November since 1946, but was still 3 percent below the 1942-51 average for the month. In the first 11 months of 1953, milk production totaled 111.4 billion pounds, some 4.7 billion more than in the same period of 1952. If conditions in December are not unfavorable, farm milk output during the 1953 calendar year appears likely to equal or exceed the previous all-time high of 119.8 billion pounds set in 1945.

Early upturn in milk per cow

Milk production per cow in crop reporters' herds reached its seasonal low point earlier than usual this fall, and from November 1 to December 1 increased 2½ percent in contrast with an average decline of about 2 percent. On December 1, milk production per cow averaged 15.41 pounds, a new high record for the date, 4 percent above a year ago, and 17 percent above average. Of the milk cows in crop reporters' herds, 67.7 percent were being milked on December 1, the highest proportion for the date in a dozen years, and above November 1 for the first time in 29 years of record.

November milk output this year exceeded that of a year ago in all but one of the 30 States for which monthly milk production estimates are currently available. In Oklahoma, Idaho, and California, milk production was 11 percent or more above November 1952, and in the Northern Pacific Coast States, the Central and Northern Great Plains, Illinois, and the Carolinas, production ranged from 6 to 10 percent higher. Despite gains over a year ago, milk output in many Corn Belt and Great Plains States was below the 10-year average because milk cow numbers are now materially below the peaks of the past decade. Wisconsin, with milk production totaling 956 million pounds, led all States in farm milk output, followed by Minnesota with 524 million pounds, California with 496 million pounds, and Pennsylvania with 432 million pounds.

Table 2.—ESTIMATED MONTHLY MILK PRODUCTION ON FARMS, SELECTED STATES 1/

State	Nov. av. : 1942-51	Nov. : 1952	Oct. : 1953	Nov. : 1953	State	Nov. av. : 1942-51	Nov. : 1952	Oct. : 1953	Nov. : 1953
Million pounds				Million pounds					
N. J.	79	85	89	88	N. C.	112	125	141	137
Pa.	378	427	454	432	S. C.	42	42	50	45
Ohio	354	389	441	395	Ky.	152	156	194	161
Ind.	254	245	285	251	Tenn.	150	167	193	170
Ill.	364	337	387	362	Ala.	96	97	111	102
Mich.	359	386	441	396	Miss.	93	93	114	95
Wis.	852	909	1,037	956	Okla.	142	109	136	128
Minn.	505	521	483	524	Tex.	257	226	253	228
Iowa	413	382	432	393	Mont.	40	32	39	34
Mo.	265	271	323	275	Idaho	85	82	97	91
N. Dak.	102	95	109	102	Utah	45	49	51	49
S. Dak.	86	78	90	84	Wash.	123	114	138	122
Nebr.	148	129	156	139	Oreg.	85	81	95	87
Kans.	190	168	182	185	Calif.	414	446	529	496
Va.	132	146	173	153	Other States	1,279	1,447	1,487	1,516
W. Va.	59	57	69	59	U. S.	7,655	7,891	8,779	8,255

1/ Monthly data for other States not yet available.

GRAIN AND OTHER CONCENTRATES FED TO MILK COWS

In the early stages of the winter feeding period, crop reporters continued to feed record or near record quantities of grain and concentrates per milk cow to their herds in all sections of the country. The average rate of feeding on December 1 was 5.66 pounds per cow -- the highest for the date in 21 years of record, 1 percent above the previous high of December 1, 1952, and 12 percent above the 1942-51 average for the date. About 86 percent of the crop reporters were feeding some grain or other concentrates to cows in their milking herds on December 1 -- the second highest percentage in 2 decades of record.

Heavy feeding in all regions

By regions, the amounts of grain fed on December 1 this year were not greatly different from the heavy feeding rates of a year ago. In the East North Central and South Atlantic regions, crop reporters fed 6.5 and 5.1 pounds per cow, respectively, slightly above last year's previous record high. In the South Central region, grain and concentrate rations averaged 4.7 pounds to equal last year's record rate. In the other regions, quantities per cow were only 0.2 pound below the December 1 record high rate. Compared with average for December 1, the sharpest increase in grain feeding was in the South Central region -- up almost 22 percent. Feeding rates in all other areas were also above average, with increases ranging from 5 percent in the New England area to 11 percent in the East North Central region. Among the individual States, December 1 grain feeding rates on crop reporters' farms set new highs for the date in 13 States and equaled the record in 3 others.

Grain and concentrate ration values have dropped substantially during 1953 and in November were the lowest for the month in 3 years. Farmers in milk selling areas during November were feeding grain and concentrate rations worth \$3.27 per 100 pounds, down almost 12 percent from a year earlier. In cream selling areas, grain and concentrate ration values averaged \$2.89, down more than 10 percent from November 1953. Lower feed costs and upturns in dairy product prices resulted in seasonal improvement of the dairy product-feed price ratios. The November 1953 milk-feed price ratio was slightly above average and the most favorable since 1949. However, the butterfat-feed price ratio, while improved over a year ago, was still substantially below average for November.

Table 3.--DAIRY PRODUCT-FEED PRICE RATIOS, BY REGIONS

Region	Milk-Feed ^{1/}				Butterfat-Feed ^{2/}			
	Nov. 1931-50 av.	Nov. 1952	Oct. 1953	Nov. 1953	Nov. 1931-50 av.	Nov. 1952	Oct. 1953	Nov. 1953
N. Atl.	1.40	1.36	1.38	1.46	-	-	-	-
E. N. C.	1.41	1.46	1.37	1.42	24.8	21.5	21.6	22.4
W. N. C.	1.68	1.55	1.47	1.46	28.9	24.7	25.0	25.3
S. Atl.	1.63	1.57	1.58	1.66	-	-	-	-
S. Cent.	1.61	1.57	1.53	1.57	19.4	15.4	16.2	16.1
West	1.40	1.40	1.36	1.42	21.9	18.1	18.6	18.9
U. S.	1.43	1.44	1.40	1.45	25.6	22.4	22.8	23.1

^{1/} Pounds of concentrate ration equal in value to 1 pound of whole milk sold by farmers to plants and dealers.

^{2/} Pounds of concentrate ration equal in value to 1 pound of butterfat in cream sold by farmers.

UNITED STATES DEPARTMENT OF AGRICULTURE

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MILK PRODUCED AND "GRAIN" FED PER MILK COW IN HERDS KEPT BY REPORTERS 1/						
State	Milk produced per milk cow			"Grain" fed per milk cow 2/		
and	Dec. 1, Av.	Dec. 1,	Dec. 1,	Dec. 1, Av.	Dec. 1,	Dec. 1,
Division	1942-51	1952	1953	1942-51	1952	1953
	Pounds			Pounds		
Maine	13.7	15.5	17.1	5.7	6.0	6.4
N. H.	15.6	17.2	18.7	5.4	5.6	5.9
Vt.	13.9	16.6	17.0	5.5	5.6	5.6
Mass.	16.8	19.5	20.4	6.4	6.4	6.3
Conn.	16.9	17.5	19.6	6.4	6.2	6.9
N. Y.	17.1	20.0	19.5	6.3	6.8	6.6
N. J.	19.2	20.4	21.5	8.0	7.8	7.7
Pa.	16.3	18.9	18.8	7.2	7.3	7.5
N. Atl.	16.72	19.14	19.36	6.5	6.7	6.8
Ohio	14.8	18.0	18.0	6.1	6.5	6.9
Ind.	13.6	15.8	16.2	5.8	6.2	6.5
Ill.	14.4	15.9	17.2	6.2	6.7	6.7
Mich.	16.6	19.3	19.6	6.0	6.8	6.9
Wis.	14.8	16.5	17.4	5.4	5.8	6.0
E. N. Cent.	14.97	17.06	17.74	5.8	6.3	6.5
Minn.	14.8	17.7	17.6	5.2	5.8	5.3
Iowa	14.1	15.6	16.0	6.0	6.8	6.6
Mo.	10.2	11.8	12.1	4.6	5.1	5.6
N. Dak.	10.6	11.7	12.8	4.2	4.5	4.5
S. Dak.	10.2	11.9	12.1	3.6	4.1	3.8
Nebr.	12.8	13.5	15.3	4.6	5.5	5.1
Kans.	13.2	13.8	16.3	4.8	5.9	5.7
W. N. Cent.	12.72	14.29	15.31	5.0	5.7	5.5
Md.	15.2	17.8	17.7	6.8	7.4	7.7
Va.	12.5	14.6	15.1	5.0	5.1	5.5
W. Va.	10.9	10.9	11.1	3.8	3.3	4.2
N. C.	11.7	13.0	14.3	5.1	5.4	5.7
S. C.	10.5	10.5	11.5	3.8	4.4	3.8
Ge.	8.7	9.5	9.2	3.6	4.5	4.3
S. Atl.	11.73	12.86	13.37	4.6	5.0	5.1
Ky.	10.6	11.2	11.2	5.1	5.4	5.4
Tenn.	9.4	10.7	10.3	4.4	4.7	5.2
Ala.	8.4	8.8	8.1	4.2	4.5	4.3
Miss.	6.9	6.6	7.0	3.0	4.1	4.0
Ark.	7.3	7.5	8.1	3.1	3.8	4.5
Okla.	9.2	9.2	11.3	3.5	4.6	3.8
Tex.	7.6	8.3	9.0	3.7	5.5	5.5
S. Cent.	8.60	9.15	9.67	3.7	4.7	4.7
Mont.	13.3	14.4	15.1	3.9	4.5	4.1
Idaho	16.6	18.1	18.8	3.7	3.9	4.4
Wyo.	13.8	15.0	14.8	3.3	3.3	2.6
Colo.	14.4	15.9	16.8	4.7	5.6	5.3
Utah	16.7	20.5	19.5	3.7	4.7	5.0
Wash.	16.4	17.3	18.0	5.4	5.3	5.3
Oreg.	13.9	14.7	15.7	4.4	4.9	5.3
Calif.	17.5	19.0	19.5	4.5	4.5	4.5
West.	15.57	17.11	17.74	4.4	4.8	4.8
U. S.	13.19	14.78	15.41	5.06	5.62	5.66

1/ Figures for New England States and New Jersey represent combined crop and special dairy reporters; other States, regions, and U.S., crop reporters only. Regional figures include less important dairy States not shown separately. 2/ Includes grain, millfeeds and other concentrates.

FALL FRESHENINGS CONTRIBUTE TO WINTER MILK PRODUCTION

In the winter of 1952-53, milk production was remarkably heavy during the normal low period of production. Annual rates of milk production, computed on the basis of current monthly production adjusted by a normal seasonal variation factor, persisted at an all-time high of about 123 billion pounds from December 1952 through March 1953. As milk production approached the seasonal peak in the month of June, the annual rate of production dropped to 116 billion pounds, even though early season pastures were good in most dairy areas. The unusually heavy winter production appeared at the time to be due to a combination of exceptionally favorable circumstances including mild weather, heavy concentrate feeding, and increasing milk cow numbers which would be unlikely to recur simultaneously. However, in November 1953, milk production again pushed to a new high record annual rate, suggesting the possibility that some more permanent factor may be involved in the heavy winter milk flow.

Increases in winter milk production could be most easily brought about by increasing the proportion of milk cows freshening in the fall months, thus having them at the high point of their lactation period during the winter. Data on the percentage of milk cows being milked on the first of each month in crop reporters' herds suggest some shift toward fall freshening in the last two years. The percentage of milk cows in production from December 1, 1952 through April 1, 1953, ranged from 1 to 3 percent higher than the 1942-51 average. This was preceded by a 2 percent below average percentage of cows milked on August 1 and September 1, 1952, when fall-fresh cows would likely have been dry. Again this fall, the percentage of cows milked was relatively low on August 1 and September 1, and jumped to sharply above average on December 1. These figures, as shown in table 4 would suggest that farmers are definitely pointing milking herds toward high winter production.

Reported data on the actual freshenings of milk cows are available only for a limited number of States. In table 5 are shown number of milk cows freshening each month as percent of milk cows on hand in New York, Michigan, and Wisconsin, three

Table 4.--COWS MILKED AS PERCENTAGE OF ALL MILK COWS
IN CROP REPORTERS' HERDS, FIRST-OF-MONTH,
UNITED STATES, 1942-51 AVERAGE, and 1952-53

Date	1942-51 av.:	1952	1953	Percent of 10-year av.	
	Percent milked	Percent milked	Percent milked	1952 : Percent	1953 : Percent
Jan. 1	65.3	65.3	66.6	100:0	102.0
Feb. 1	65.2	65.6	66.9	100:6	102.6
Mar. 1	66.6	67.2	68.3	100:9	102.6
Apr. 1	69.5	70.2	71.0	101:0	102.2
May 1	73.2	73.2	73.7	100:0	100.7
June 1	76.0	75.7	75.9	99.6	99.9
July 1	76.5	75.3	75.6	98.4	98.8
Aug. 1	74.6	73.1	73.3	98.0	98.3
Sept. 1	71.9	70.4	70.2	97.9	97.6
Oct. 1	69.5	68.6	68.6	98.7	98.7
Nov. 1	67.5	66.8	67.4	99:0	99.9
Dec. 1	66.1	66.7	67.7	100.9	102.4

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major milk producing States. These reporters' herds have shown a distinct shift from spring to fall freshening over the period from 1945 to date. In the 5-year period, 1945-1949, about 27 percent of the total annual freshenings took place in the months of September, October, and November. In 1952, the percentage of fall fresh cows reached almost 30 percent and data for 1953 indicate that freshenings in these months are likely to be about 31 percent of the annual number. In contrast, freshenings during February, March, and April dropped from about 33 percent of the total annual freshenings in the 1945-1949 period to 30 percent in 1952 and even lower in 1953. Thus, it would appear that in commercial herds of this type, definite effort has been made to step up winter milk production through seasonal adjustments in freshenings.

Table 5.-MILK COWS FRESHENING DURING MONTH AS PERCENT OF NUMBER
ON HAND, REPORTERS' HERDS, 3 STATES, 1945-53 ^{1/}

Month	1945	1946	1947	1948	1949	1950	1951	1952	1953
	%	%	%	%	%	%	%	%	%
Jan.	8.7	9.4	9.2	8.8	9.2	9.5	9.4	9.1	9.1
Feb.	10.2	10.0	10.4	9.6	9.3	10.3	9.7	9.5	9.8
Mar.	12.1	13.0	12.4	12.4	12.2	11.6	11.1	10.5	11.1
Apr.	9.6	9.7	9.4	9.6	9.0	8.0	8.8	8.9	8.2
May	7.1	6.5	6.7	6.1	6.4	6.0	6.1	5.9	6.0
June	5.1	5.0	4.5	4.5	4.9	4.4	4.8	4.7	4.5
July	4.2	4.1	4.2	3.9	3.8	4.0	4.0	4.2	4.2
Aug.	5.0	4.9	4.5	4.7	5.0	5.5	5.6	5.6	5.6
Sept.	7.6	6.9	7.5	7.4	8.4	9.3	8.8	9.1	10.0
Oct.	8.0	9.0	9.4	9.3	9.8	10.2	10.4	9.5	10.7
Nov.	9.3	9.3	9.1	9.6	9.5	9.6	9.3	10.1	10.1
Dec.	9.0	9.7	9.6	8.9	9.8	9.1	9.7	9.5	

^{1/} Average of dairy reporters' herds in New York and Wisconsin and crop reporters' herds in Michigan. Data are believed to be reasonably representative of herds producing milk for sale, but probably show more fall freshening and less spring freshening than would be typical of a true cross section of all milking herds. Monthly percentages do not add to 100 since not all cows freshen each year. 6 -