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THE DAIRY SITUATION

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Current production of manufactured dairy products is heavy. The outlook, however, is for relatively light production during the winter feeding period because of the short supplies of feed and low prices of dairy products in relation to prices of feed. Milk cow numbers have passed the peak and some decline has taken place. The feed situation together with the low prices of milk cows will probably result in a further decline in numbers. The movement of dairy products into consuming channels has been larger than a year ago and at higher prices, indicating an increase in consumer expenditures for dairy products. Stocks of dairy products are less than a year ago.

Manufactured production same as a year ago

Total production of the principal manufactured dairy products (milk equivalent basis) in August was about the same as the record August production in 1933, and was unusually heavy in view of the poor pastures and short supplies of feed. The decline in production from July to August this year was only 6 percent compared with the usual seasonal decline of more than twice that amount.

August production of creamery butter was 2.4 percent less than a year earlier. The increase in production in the North Atlantic and East North Central States was more than offset by the decline in other sections more seriously affected by the drought. Cheese production showed an increase of 5 percent and evaporated milk 13 percent.

Milk production per cow up, number of cows down

Milk production per cow on October 1 of 12.08 pounds (reported by crop correspondents) was about 1 percent larger than the low production reported on that date a year earlier and about the same as 2 years earlier. While dairy pastures are still very poor there was considerable improvement in September.

The percentage of cows being milked on October 1 of 70.9 percent was the highest on record for that date in the 10 years for which such records are available. The high percentage of cows being milked probably indicates a considerable increase in culling due in part to the cattle purchase program of the government.

There has been a decrease in numbers of milk cows so that on October 1 total milk production was probably 1 to 2 percent less than on October 1 a year ago. Lower milk production than a year earlier is likely to continue during the winter months.

Butterfat prices low in relation to feed grains

In mid-September the farm price of butterfat was 24.0 cents. At farm prices the value per hundred pounds of feed grains and cottonseed combined in the proportions fed to milk cows was \$1.47. A pound of butterfat was equivalent in price to 16.3 pounds of feed grains. This was the lowest price of butterfat in relation to feed grains since 1920. This relationship between the price of butterfat and feed grains is probably not high enough to maintain production.

The following table gives the pounds of feed grains equivalent in price to a pound of butterfat for various sections of the United States. The first column gives the average for the 5-year period 1925-1929. In this period, for the United States as a whole, 30.3 pounds of feed grains were equivalent in price to a pound of butterfat.

Table 1.- Pounds of feed grains one pound of butterfat will buy, 1925-1929, 1932, 1933 and last 12 months 1/

| Region | 1925-1929 | 1932 | 1933 | 12 months Oct. 1933- Sept. 1934 | Last 12 months percentage of 1925-1929 |
|---------------------|---------------|---------------|---------------|---------------------------------------|--|
| | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> | <u>Percent</u> |
| United States | 30.3 | 34.2 | 27.2 | 21.8 | 72 |
| North | | | | | |
| Atlantic .. | 27.5 | 25.2 | 27.2 | 20.5 | 75 |
| East North | | | | | |
| Central ... | 32.1 | 37.5 | 28.3 | 22.9 | 71 |
| West North | | | | | |
| Central ... | 33.0 | 37.7 | 33.2 | 25.6 | 78 |
| South | | | | | |
| Atlantic .. | 21.6 | 22.8 | 16.4 | 14.8 | 69 |
| South | | | | | |
| Central ... | 23.3 | 25.9 | 18.6 | 15.6 | 67 |
| Western | 29.0 | 23.6 | 23.7 | 21.6 | 74 |

1/ Based on farm prices of butterfat and feed grains.

In the North Central States butterfat was higher in price in relation to feed grains than in other sections of the country. It is this price relationship which makes it advantageous to produce butter in the Midwest. During the period of general deflation in prices butterfat prices did not decline as rapidly as grain prices and butterfat was unusually high in relation to grain. In 1932 in the Midwestern States, butterfat prices were low but in relation to grain were probably the highest on record.

With the general rise in prices since March 1933, prices of grains have increased more than butterfat, and for the past 12 months butterfat has averaged low in relation to grain, and only about 70 percent as high as

in the period 1925 to 1929. It is this unfavorable price relationship that is an important factor in causing a heavy market culling of milk cows from herds.

Milk cow prices low in relation to other farm prices

The first column in the following table gives the Bureau of Agricultural Economics index of farm prices of all products, the second column gives the index number of farm prices of milk cows. The third column was obtained by dividing the index of milk cow prices by the index of farm prices and multiplying by 100 in order to put it on a percentage basis. Thus the third column gives the purchasing power of milk cows in terms of prices of all farm products and shows the cycle in milk cow prices.

Milk cow prices were high in terms of other farm products from 1913 to 1915, and were very low in relation to other farm products from 1917 to 1925. From 1925 to 1929 there was a marked rise in milk cow prices in relation to other farm products. It was the high prices of cows in relation to other products that stimulated the raising of heifers and the expansion in cattle numbers since 1928. Since 1932 milk cow prices have declined in relation to other things, and in mid-September were the lowest in relation to the general level of farm prices for the 25 years that the data are available.

These extremely low prices of milk cows will discourage the raising of heifers. The low price of dairy products in relation to feeds will cause considerable culling. These two factors will probably result in a reduction in milk cow numbers.

Table 2.- Index numbers of farm prices, prices of milk cows and purchasing power of milk cows in terms of farm products, 1910-1934
(1910-1914 = 100)

| Year | Farm prices of products | Farm prices of milk cows | Purchasing power of milk cows in terms of farm products | Year | Farm prices of products | Farm prices of milk cows | Purchasing power of milk cows in terms of farm products |
|------|-------------------------|--------------------------|---|-------|-------------------------|--------------------------|---|
| 1910 | 102 | 86 | 84 | 1927 | 139 | 151 | 109 |
| 1911 | 95 | 89 | 94 | 1928 | 149 | 183 | 123 |
| 1912 | 100 | 93 | 93 | 1929 | 146 | 191 | 131 |
| 1913 | 101 | 111 | 110 | 1930 | 126 | 151 | 120 |
| 1914 | 101 | 121 | 120 | 1931 | 87 | 104 | 120 |
| 1915 | 98 | 118 | 120 | 1932 | 65 | 75 | 115 |
| 1916 | 118 | 124 | 105 | 1933 | 70 | 68 | 97 |
| 1917 | 175 | 146 | 83 | 1934 | | | |
| 1918 | 202 | 169 | 84 | Jan. | 77 | 63 | 82 |
| 1919 | 213 | 187 | 88 | Feb. | 84 | 66 | 79 |
| 1920 | 211 | 182 | 86 | Mar. | 85 | 67 | 79 |
| 1921 | 125 | 120 | 96 | Apr. | 83 | 67 | 81 |
| 1922 | 132 | 109 | 83 | May | 81 | 67 | 83 |
| 1923 | 142 | 113 | 80 | June | 84 | 65 | 77 |
| 1924 | 143 | 113 | 79 | July | 87 | 65 | 75 |
| 1925 | 156 | 118 | 76 | Aug. | 95 | 63 | 66 |
| 1926 | 145 | 133 | 92 | Sept. | 102 | 67 | 66 |

Trade output up

During the past summer the movement of dairy products into consuming channels has been larger than a year earlier, even though production was less. The movement into storage has been relatively light. In August trade output of butter was 6.2 percent larger than a year earlier, trade output of cheese was up 24.3 percent and evaporated milk 95.6 percent. On a milk equivalent basis the trade output of these three products was 14.1 percent larger than a year earlier. For the first 8 months of 1934 the increase has amounted to about 4 percent.

The changes in trade output and retail prices indicate that consumer expenditures for butter in August exceeded the same month of the preceding year by 28 percent and for cheese 26 percent.

Storage stocks increase

During September there was an increase in cold storage holdings of both butter and American cheese. Storage stocks usually reach the peak on September 1. This year with relatively heavy fall production and relatively light production in prospect during the feeding period, stocks have increased. With this increase cold storage holdings of butter are 48,000,000 pounds less than a year earlier, but stocks of American cheese are about 8,000,000 pounds larger. Combined on a milk equivalent basis, however, stocks of these two products were about 20 percent less than a year earlier.

Table 3.-Production of dairy products, August 1933 - October 1934,

| Year and month | Milk produc- | Percent- : age of cows | Dairy : pastures : con- : dition | Factory production of dairy products 2/ | | | | Oleo- : mar- | |
|---|--|-------------------------|----------------------------------|---|----------------|----------------------|-----------------------|-------------------------------|------|
| | tion per : cow per : day, 1st : of month | age of : 1st : of month | pastures : 1st : of month 1/ | Creamery : butter | Cheese : milk | Con- : densed : milk | Evapo- : rated : milk | Total : milk : equiva- : lent | |
| | Pounds | Percent | Percent | Million pounds | Million pounds | Million pounds | Million pounds | Million pounds | |
| 1933 | | | | | | | | | |
| Aug. | 13.67 | 73.9 | 55.7 | 166.6 | 54.9 | 4.1 | 154.6 | 4,396 | 20.3 |
| Sept. | 12.74 | 71.7 | 57.3 | 140.0 | 47.1 | 3.4 | 129.4 | 3,703 | 21.2 |
| Oct. | 11.98 | 69.3 | 63.7 | 130.5 | 41.4 | 3.9 | 113.3 | 3,411 | 23.5 |
| Nov. | 11.48 | 68.1 | | 115.2 | 31.1 | 3.9 | 73.6 | 2,901 | 23.8 |
| Dec. | 11.21 | 66.5 | | 116.4 | 33.8 | 4.4 | 84.8 | 2,978 | 21.3 |
| 1934 | | | | | | | | | |
| Jan. | 11.46 | 65.8 | | 113.3 | 28.0 | 4.7 | 98.7 | 2,887 | 17.3 |
| Feb. | 11.61 | 64.5 | | 106.8 | 30.6 | 4.2 | 100.2 | 2,779 | 21.4 |
| Mar. | 11.96 | 65.5 | | 123.8 | 39.1 | 6.4 | 127.1 | 3,283 | 23.6 |
| Apr. | 12.65 | 67.3 | 70.1 | 133.6 | 46.9 | 5.9 | 149.9 | 3,618 | 18.2 |
| May | 13.75 | 70.3 | 66.0 | 174.6 | 60.1 | 5.2 | 188.1 | 4,693 | 18.1 |
| June | 15.36 | 73.4 | 55.3 | 180.7 | 68.8 | 5.8 | 210.5 | 4,959 | 14.0 |
| July | 14.98 | 75.2 | 51.5 | 172.3 | 62.7 | 5.7 | 189.6 | 4,676 | 16.3 |
| Aug. | 13.23 | 74.0 | 43.8 | 162.6 | 57.9 | 6.3 | 175.1 | 4,392 | 22.0 |
| Sept. | 12.80 | 72.6 | 47.0 | | | | | | |
| Oct. | 12.09 | 70.9 | 59.2 | | | | | | |
| Index numbers adjusted for seasonal variation (1925-1929 = 100) | | | | | | | | | |
| 1933 | | | | | | | | | |
| Aug. | 91 | 100 | 70 | 115 | 124 | 37 | 141 | 117 | 101 |
| Sept. | 94 | 101 | 73 | 118 | 122 | 32 | 140 | 119 | 92 |
| Oct. | 95 | 101 | 81 | 124 | 117 | 34 | 123 | 121 | 89 |
| Nov. | 96 | 102 | | 133 | 122 | 37 | 108 | 128 | 91 |
| Dec. | 96 | 102 | | 129 | 146 | 38 | 117 | 129 | 79 |
| 1934 | | | | | | | | | |
| Jan. | 97 | 102 | | 114 | 116 | 39 | 115 | 114 | 70 |
| Feb. | 94 | 101 | | 112 | 125 | 40 | 119 | 113 | 88 |
| Mar. | 92 | 101 | | 114 | 129 | 46 | 124 | 116 | 94 |
| Apr. | 91 | 100 | 86 | 111 | 132 | 36 | 122 | 113 | 78 |
| May | 91 | 99 | 81 | 108 | 122 | 28 | 125 | 111 | 85 |
| June | 88 | 99 | 63 | 100 | 120 | 34 | 121 | 103 | 74 |
| July | 87 | 99 | 61 | 103 | 122 | 44 | 136 | 107 | 90 |
| Aug. | 88 | 100 | 55 | 112 | 131 | 56 | 159 | 117 | 110 |
| Sept. | 94 | 102 | 60 | | | | | | |
| Oct. | 96 | 103 | 75 | | | | | | |

1/ Percentage of normal, except in the case of index numbers for which the corresponding months, 1920-1929 = 100.

2/ The production of cheese; condensed and evaporated case goods here given, has been revised on the basis of the final figures for 1931 production.

3/ Case goods, unskimmed.

Table 4.-Prices of feed and dairy products, August 1933 - September 1934

| Year and month | Index numbers | | | | Prices paid | | | | Wholesale prices | | | | Index |
|--|--|-----------------------------------|--|------------------------------------|----------------------------|-------------------|------------------|----------------------------|----------------------------|---|--------|------|-------|
| | Farm price Aug. 1909 - July 1914 = 100 | By-product feeds: 1913-1914 = 100 | New York dairy ration: 1913-1914 = 100 | Farm price per ton of but-ter: fat | for milk per 100 pounds by | But-ter per pound | Cheese per pound | Con-dens-ed milk: per case | Evap-orated milk: per case | manu-fac-tured dairy pro-ducts: 1910-1914 = 100 | | | |
| 1933 | | | | Dolls. | Cents | Dolls. | Dolls. | Cents | Cents | Dolls. | Dolls. | | |
| Aug. | 79 | 85 | 76 | 93 | 29 | 18.4 | 1.10 | 1.67 | 21.3 | 11.0 | 4.94 | 2.54 | 72 |
| Sept. | 80 | 89 | 74 | 81 | 27 | 19.6 | 1.07 | 1.72 | 23.6 | 10.5 | 4.94 | 2.55 | 77 |
| Oct. | 78 | 91 | 64 | 77 | 26 | 20.1 | 1.10 | 1.77 | 24.0 | 10.5 | 4.94 | 2.57 | 78 |
| Nov. | 80 | 92 | 68 | 78 | 26 | 20.4 | 1.08 | 1.79 | 23.6 | 10.5 | 4.95 | 2.56 | 77 |
| Dec. | 78 | 88 | 70 | 73 | 26 | 18.0 | 1.00 | 1.80 | 20.1 | 9.3 | 4.95 | 2.55 | 68 |
| 1934 | | | | | | | | | | | | | |
| Jan. | 77 | 84 | 73 | 79 | 27 | 16.1 | .97 | 1.81 | 19.9 | 9.6 | 4.95 | 2.56 | 68 |
| Feb. | 83 | 92 | 76 | 84 | 28 | 21.6 | 1.10 | 1.80 | 25.4 | 12.6 | 4.90 | 2.57 | 83 |
| Mar. | 84 | 95 | 77 | 90 | 28 | 23.5 | 1.11 | 1.79 | 25.4 | 13.2 | 4.88 | 2.54 | 83 |
| Apr. | 82 | 91 | 76 | 88 | 27 | 21.0 | 1.02 | 1.81 | 23.7 | 11.0 | 4.88 | 2.56 | 78 |
| May | 82 | 91 | 77 | 85 | 27 | 21.5 | 1.06 | 1.81 | 24.5 | 11.4 | 4.70 | 2.54 | 80 |
| June | 86 | 93 | 90 | 98 | 30 | 22.2 | 1.09 | 1.82 | 24.9 | 12.5 | 4.74 | 2.54 | 82 |
| July | 87 | 94 | 94 | 104 | | 22.1 | 1.09 | 1.86 | 24.5 | 10.6 | 4.73 | 2.53 | 79 |
| Aug. | 96 | 97 | 112 | 121 | | 24.3 | 1.21 | 1.91 | 27.4 | 12.1 | 4.73 | 2.53 | 87 |
| Sept. | 102 | 99 | 123 | 120 | | 24.0 | | 1.97 | 25.8 | 11.6 | | | |
| Index numbers, adjusted for seasonal variation (pre-war = 100) | | | | | | | | | | | | | |
| 1933 | | | | | | | | | | | | | |
| Aug. | 78 | 88 | 73 | 94 | 98 | 76 | 78 | 95 | 74 | 78 | 109 | 76 | 76 |
| Sept. | 80 | 91 | 73 | 83 | 89 | 77 | 75 | 96 | 77 | 72 | 109 | 75 | 77 |
| Oct. | 78 | 90 | 65 | 79 | 89 | 76 | 74 | 97 | 76 | 68 | 107 | 75 | 76 |
| Nov. | 80 | 89 | 72 | 77 | 92 | 73 | 72 | 97 | 71 | 69 | 108 | 76 | 72 |
| Dec. | 77 | 85 | 75 | 70 | 90 | 63 | 65 | 97 | 60 | 61 | 108 | 75 | 63 |
| 1934 | | | | | | | | | | | | | |
| Jan. | 77 | 81 | 76 | 77 | 92 | 58 | 63 | 97 | 64 | 61 | 108 | 75 | 66 |
| Feb. | 84 | 90 | 78 | 83 | 94 | 81 | 73 | 98 | 81 | 85 | 107 | 76 | 82 |
| Mar. | 85 | 93 | 76 | 91 | 98 | 86 | 76 | 99 | 80 | 94 | 107 | 76 | 82 |
| Apr. | 83 | 91 | 75 | 88 | 94 | 80 | 72 | 101 | 79 | 84 | 108 | 77 | 80 |
| May | 81 | 94 | 76 | 84 | 93 | 85 | 79 | 104 | 86 | 83 | 104 | 76 | 85 |
| June | 84 | 97 | 85 | 101 | 105 | 91 | 83 | 106 | 88 | 91 | 105 | 77 | 87 |
| July | 87 | 98 | 90 | 105 | | 90 | 82 | 108 | 86 | 81 | 104 | 75 | 84 |
| Aug. | 95 | 102 | 107 | 124 | | 100 | 87 | 108 | 95 | 85 | 104 | 75 | 91 |
| Sept. | 102 | 101 | 121 | 123 | | 95 | | 110 | 84 | 79 | | | |

1/ Index number of by-product feeds is based on wholesale prices at primary markets
 2/ Wholesale price per ton of dairy ration at Utica, New York, (in car lots) as published in Farm Economics by Cornell University.
 3/ In March 1931 the 48-can cases changed from 16-ounce cans to 14½ ounce cans.

