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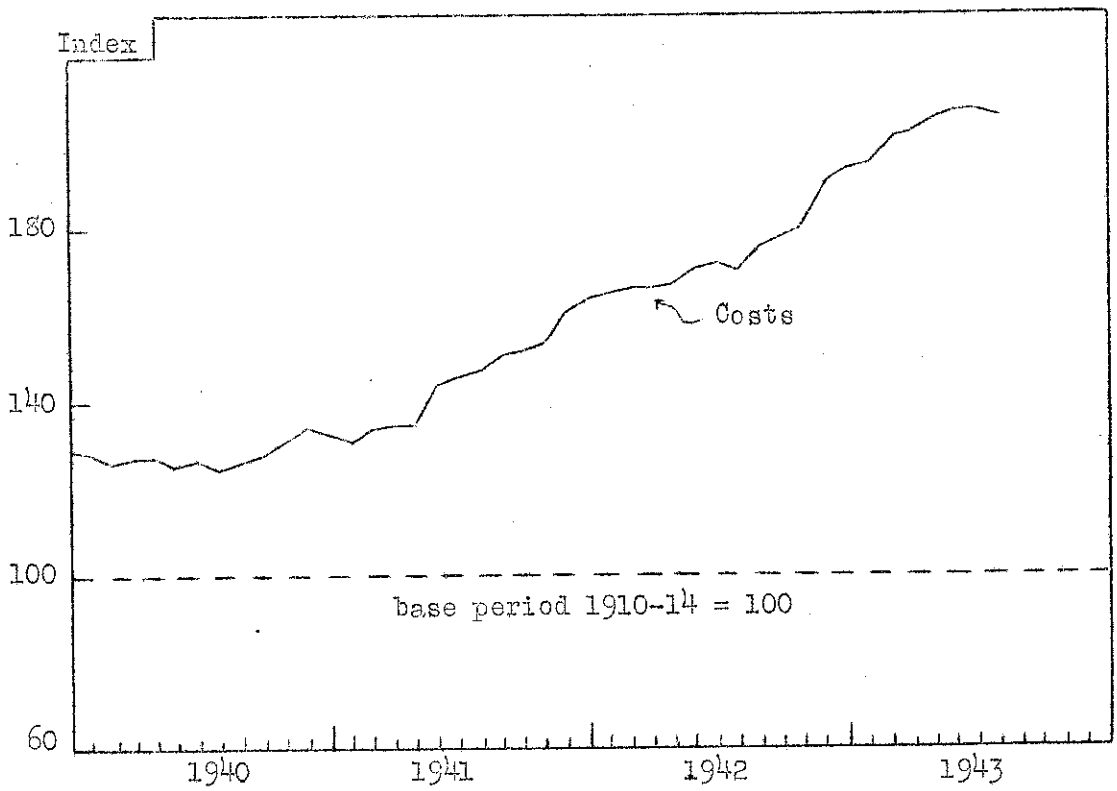
In Relation To
Guaranteed and Necessary Prices of Milk in New York
1943-44



COSTS IN DAIRY FARMING IN NEW YORK
1940 TO DATE

Costs on dairy farms, particularly wages and feeds, have been steadily rising. During the past year they have increased 21 per cent and since January 1941 the total increase has been 55 per cent.

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During 1942-43 in New York, both milk prices and production costs increased. Incomes from dairy farming compared favorably with other years, but were lower than incomes from city jobs. In the year ahead, the central problem in pricing milk is not alone one of covering rising costs but also one of enabling dairymen to obtain the labor and feed necessary to maintain maximum milk production.

Comparison of 1942-43 With Other Years

Although costs were rising, New York dairymen had a good year in 1942-43. Weather conditions generally were favorable during the 1942 crop season. Field crop and pasture conditions were better than average. Oats and barley production was 32 per cent larger than the 10-year (1932-41) production, hay 21 per cent larger and corn silage 19 per cent larger than average.

The farm price of milk was in good adjustment with dairy farm costs. In the period May 1942 to April 1943, the index of the price of milk was 182 (1910-14 = 100) and costs in dairy farming 183.

The average labor income on representative groups of dairy farms in Orange, Chenango, Oneida, and St. Lawrence Counties for the year ended April 1943 was $1,343. This compares with about $1,100 on groups of farms in five counties in 1925, one of the most favorable crop years in the twenties, and is probably the highest level of income on dairy farms since at least 1918.

The average net cost of producing milk on the farms in these four areas was $3.01 per hundredweight. Since the average price received for milk was $2.90 per 100 pounds, these dairymen realized 33 cents an hour for the labor used in producing milk.

Total milk production in the 12 months period May 1942 to April 1943 was at a high level, but was slightly lower than during the corresponding period a year earlier.

Present prospects for 1943-44 appear less favorable. The 1943 crop season produced another bumper crop of hay. Corn silage production is just about average. But in striking contrast to last year, the production of oats and barley was less than one-half of an average crop and the quality was low. As the dairy industry enters the 1943-44 barn-feeding season, this home-grown grain shortage of nearly 400,000 tons compared to last year is of especial significance in the face of the national feed situation to be discussed later.

Labor Returns Lower from Dairying than from Factory Work

In sizing up the outlook for milk production, alternative opportunities for workers on dairy farms in other jobs must also be considered. During 1942-43, earnings of factory workers in New York were the highest on record and more workers were wanted. Even though incomes from dairy farming in 1942-43 compared favorably with other years, they were not favorable compared to incomes from city jobs.

The 33 cents return per hour of labor used in producing milk in 1942-43 compares with average earnings of factory workers in the State for the same period of 95 cents per hour. Although equally high returns from dairying are not necessary to retain the labor force required for maximum milk production, this disparity in returns is too great for stability.

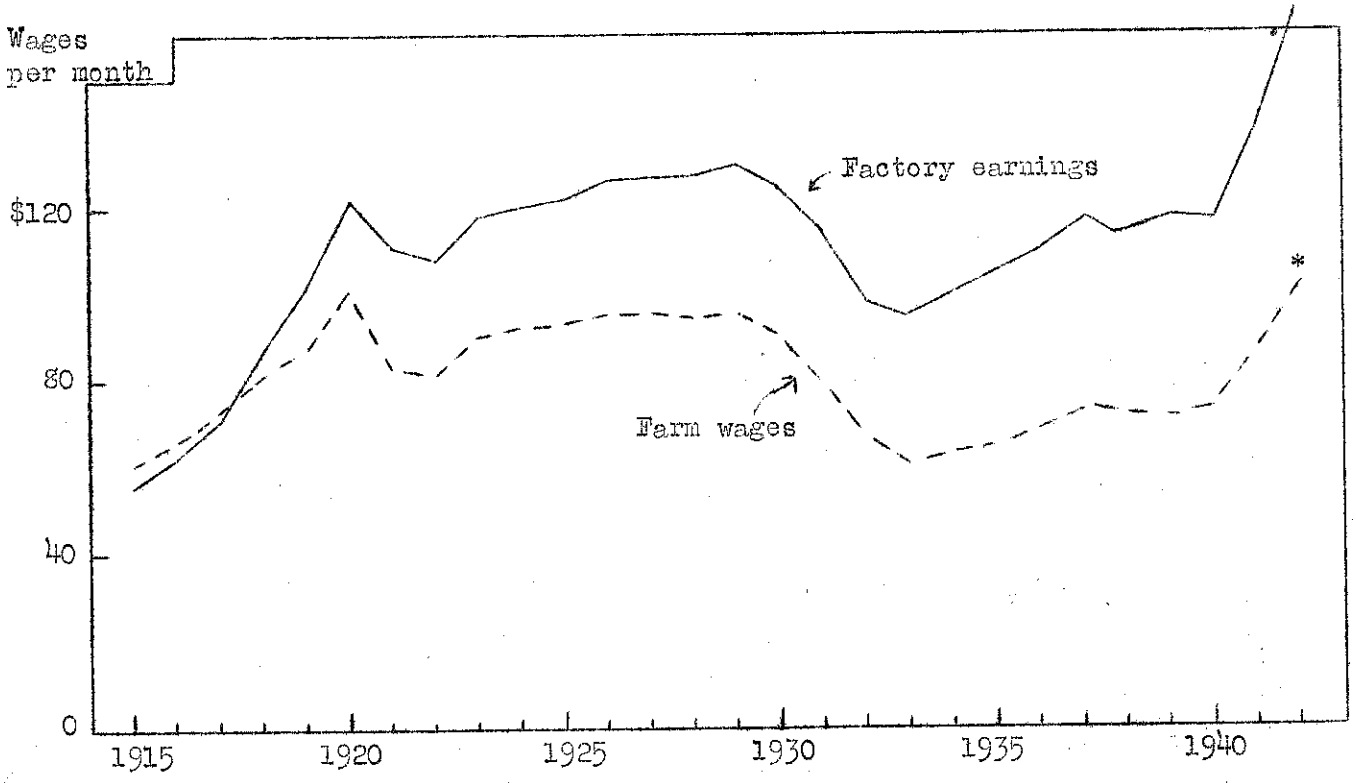
Rising Costs

Costs rose 21 per cent last year. Costs on dairy farms in New York have been rising and further increases are probable. During the past year the price of a typical dairy ration has risen 33 per cent. Farm wages have gone up about 25 per cent. Such items as insurance, taxes and interest have shown little or no change, but dairy farm costs taken as a group have risen 21 per cent (see front cover). In fact, since January 1941, the index of costs has increased almost steadily at the average rate of 1.7 per cent per month, with a total increase up to August 1943 of 55 per cent.

Outlook for Costs

Competitive wages. Farm wages have been rising and are expected to continue to increase still further because they are still low compared with urban wages.

In the period 1921 to 1930, earnings of factory workers in New York averaged $121 per month (figure 1). Farm wages including privileges amounted to $91 per month ($66 cash wages plus $25 estimated value of farm privileges). Thus a month's farm wages were equal to 75 per cent of a month's factory earnings. This relationship existed fairly uniformly for about 10 years of high industrial activity and hence is assumed to be a reasonably normal factory-farm wage differential under conditions of active employment in New York.



* July factory earnings and July 1 farm wages.

Source: Industrial Bulletin, State of New York Department of Labor and U.S.D.A. Farm Labor Reports.

FIGURE 1. EARNINGS OF FACTORY WORKERS AND FARM WAGES PER MONTH IN NEW YORK, 1915-43

In July 1943, average earnings of factory workers were $191 per month. On July 1, 1943, farm wages including privileges were $119 ($94 plus $25). Farm wages including privileges would have to rise to something like $140 (75 per cent of $191 = $143) to be in their former adjustment with factory wages.

More livestock than feed. For the State as a whole, New York dairy farms are self-sufficient with respect to roughage but about three-fourths of the concentrate requirements need to be shipped in. The national feed situation is such that all feed-deficit areas of the country face difficulties in obtaining supplies during 1943-44. New York State is particularly hard hit because of the very poor 1943 spring grain crop.

Livestock production in the United States has continued to expand during 1943, not because of increasing feed supplies, but because ceiling prices on feeds, especially corn, have prevented feed prices from checking the expansion at a point where all the animals could be fed.

The number of grain-consuming animal units in the United States, based on current trends would reach approximately 175 million by January 1, 1944 if feed supplies were available. This would be one-third more than the 10-year (1932-41) average number. In addition, feeding rates per animal have been 10 to 15 per cent above average. But feed grain production in 1943 plus the anticipated carryover this fall is not sufficient to feed such a large livestock population. To get the grain needed to maintain milk production, it will be necessary to bid it away from other uses, especially pork and lard production in the Corn Belt. Under these conditions, dairy ration costs ranging from $60 to $75 per ton might be expected.

From January 1943, when the price ceiling on corn was first established, to August 1943 only a small amount of corn flowed to market under the ceiling price. The price of dairy rations rose 16 per cent, despite the use of relatively large amounts of government feed wheat at the corn parity price. Higher-priced small grains had to be substituted for corn in the dairy rations. In September 1943, the wholesale price of corn in Buffalo was about $40 per ton, but barley was $49 per ton and oats were $54 per ton.

Estimated Cost for the Year Ahead About $3.80 per Hundredweight

An estimate based on probable economic conditions in the 1943-44 season indicates an average year-round cost of producing milk in New York of approximately $3.80 per hundredweight (table 1). This cost is based on $60 per ton for a dairy ration, $15 per ton for hay and $6 per ton for corn silage. A labor rate of 50 cents per hour was used ($100 per month for help not boarded plus $25 per month for farm privileges and 250 hours worked per month).

Insofar as it can be estimated, this represents the expected cost of producing milk. It includes increases in the following items over actual costs as found in the 1942-43 period; dairy ration price $13 per ton, hay $3.60 per ton, silage $1.40 per ton and labor 13 cents per hour, but no change in the other costs or in the credits for calves and manure.

TABLE 1. AVERAGE YEAR-ROUND COST OF PRODUCING MILK IN NEW YORK 1942-43 and 1943-44

Items	Amounts to produce 100 lbs. of milk	Actual cost 1942-43* Price per cwt.	Actual cost 1942-43* Cost per cwt. of milk produced	Estimated cost 1943-44 Price per unit	Estimated cost 1943-44 Cost per cwt. of milk produced
Grain	33 lbs.	@$47.00 per ton	$0.76	@$60 per ton	$0.99
Hay	65 lbs.	@ 11.40 per ton	0.38	@ 15 per ton	0.49
Silage	125 lbs.	@ 4.60 per ton	0.29	@ 6 per ton	0.38
Pasture	2.2 days		0.12		0.12
Labor	2.7 hrs.	@ 0.37 per hr.	1.00	@ 0.50 per hr.	1.35
Other costs minus credits			0.46		0.46
Total year-round cost			$3.01		$3.79
Price received per 100 pounds of milk			$2.90		?
Return per hour of labor			$0.33		?

* Based on an investigation of costs on representative groups of dairy farms in 4 areas of the State.

Necessary Milk Price to Bid for Labor and Feed

To enable milk producers to recover their anticipated costs, the year-round farm price of milk should be approximately $3.80 per hundredweight in 1943-44. The price of milk necessary to maintain maximum milk production in the interest of consumers, however, may be higher than $3.80. Because of attractive alternatives for labor and the tight grain situation, it may be necessary to bid more than the rates used above to get the labor and feed needed for maximum milk production.

It is, of course, difficult to determine the rates necessary to retain labor and obtain feed for milk production during the year ahead, but following are some estimates of the cost of producing milk with different prices for a dairy ration and wages for labor. Other costs and credits are assumed to remain the same as shown in table 1.

Costs with varying wage rates and feed prices. The estimated cost of $3.79 from table 1 is shown in table 2 on the line opposite the $60 per ton dairy ration price and in the column with a wage rate of $100 per month, or 50 cents per hour. With wages of $120 per month and $60 per ton for a dairy ration, the estimated year-round cost would be about $4.00 per hundredweight of milk.

A change of $10 in wages per month causes a change of 11 cents in the cost per 100 pounds of milk; a change of $5 in the price per ton of a dairy ration causes a change of 8 cents in the cost of milk.

TABLE 2. ESTIMATED YEAR-ROUND COST OF PRODUCING MILK IN NEW YORK
Based on Varying Farm Wage Rates and Price of a Dairy Ration

	Farm wages per month	$100	$120	$140
	Value of privileges	25	25	25
		$125	$145	$165
Retail price dairy ration in New York per ton	Rate per hour	50¢	58¢	66¢
		Cost per cwt. of milk		
$60		$3.79	$4.01	$4.22
65		3.87	4.09	4.30
75		4.04	4.26	4.47

Costs and the Price of Class I Milk

In studying these cost-price relationships, it is only logical to make comparisons of the cost of producing milk with the blended farm price of milk received by producers.

Actually, the administrative job in a fluid milk market such as the New York Metropolitan area is to determine class prices of milk. This approach to the problem calls for relating changes in class prices to changes in costs, using as a bench mark the declared base period in this market, August 1921 to July 1929. The following comparison is limited to the class I price of milk and costs.

In the base period, the class I price of milk in the 201-210 mile zone of the New York milkshed was $3.01 per hundredweight. The index of costs of dairy farm operation in New York, constructed originally on a 1910-14 base, was converted to the August 1921-July 1929 base for the purpose of this analysis.1/

Except for severe breaks in some months and seasonal fluctuations in the milk price, the class I price and costs in dairy farming have followed the same general course during the past 2 decades (figure 2). In August 1943, the class I price of milk was $3.50 per hundredweight, or 20 per cent higher than the base price and the index of costs on a 1921-29 base was 24 per cent higher. That is, both the milk price and costs had risen and by about the same relative amounts.

1/ See "Farm Economics", July 1942 for an explanation of this index.

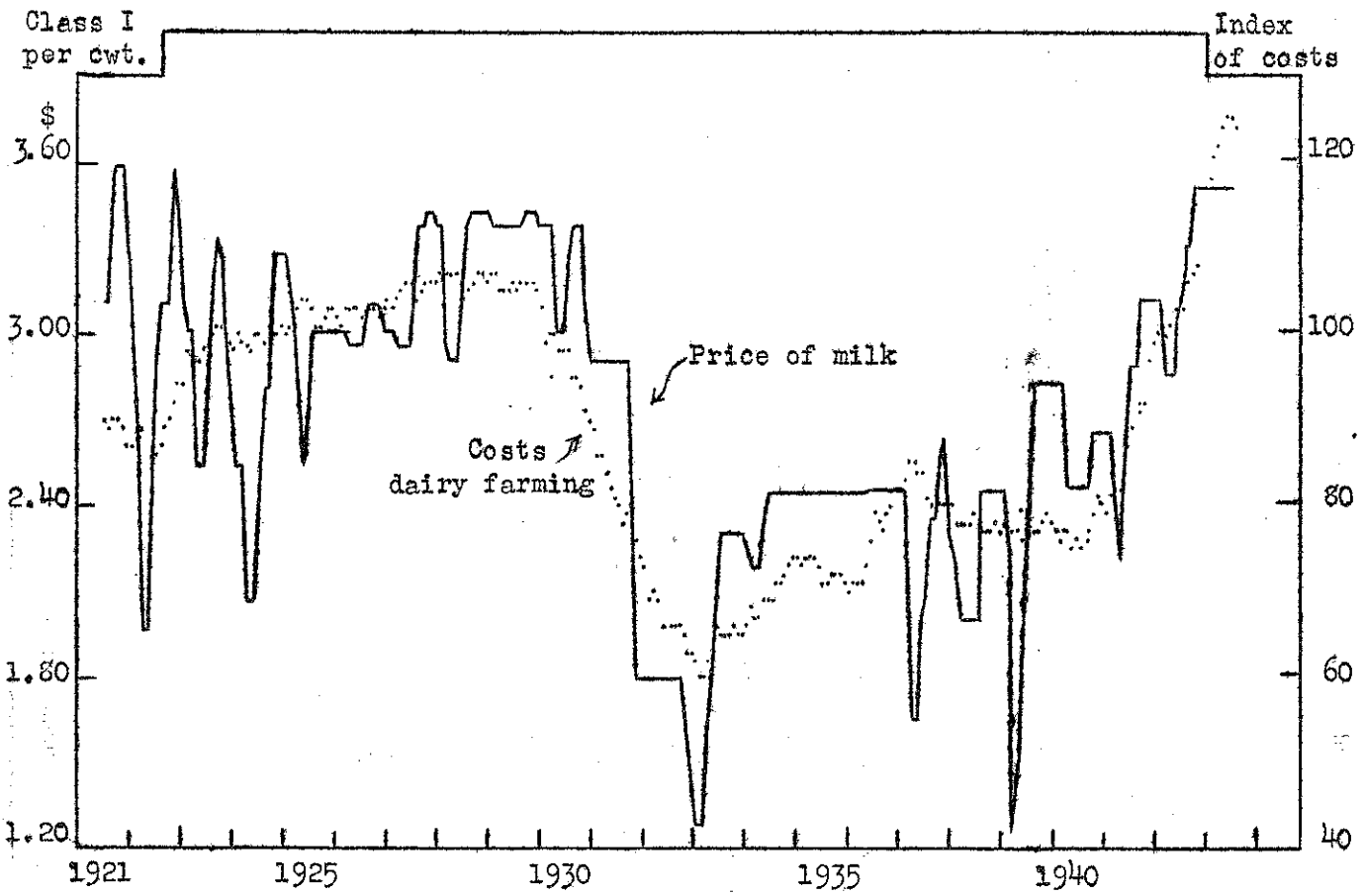


FIGURE 2. COSTS IN DAIRY FARMING AND THE CLASS I PRICE OF MILK IN NEW YORK
August 1921-July 1929 = 100

Costs in 1943-44 Call For $4.00 Class I Price

Estimates for the 1943-44 season - $60 per ton for a dairy ration, $100 per month for farm wages without board, and no change from their August level assumed for all other items - indicate an index of costs of 132. Based on the milk price-costs relationship in the base period, this would call for a class I price of milk of $4.00 per hundredweight in the July-March period and $3.75 in the April - June period (table 3). The seasonal differential of 25 cents used is provided for in the present order for the New York market. Under war conditions, the level of costs might serve to indicate a guaranteed price for the coming year.

TABLE 3. ESTIMATED PRICES OF CLASS I MILK IN THE 201-210 MILE ZONE
Based on the Index of Costs in Dairy Farming in New York

Index of costs August 1921-July 1929 = 100 Range	Class I price per 100 pounds April through June	July through March
98-102	$2.85	$3.10
103-107	3.00	3.25
108-112	3.15	3.40
113-117	3.30	3.55
118-122	3.45	3.70
123-127	3.60	3.85
128-132	3.75	4.00
133-137	3.90	4.15
138-142	4.05	4.30
143-147	4.20	4.45
148-152	4.35	4.60
153-157	4.50	4.75
158-162	4.65	4.90
163-167	4.80	5.05

Necessary Price May Exceed $4 Class I

A class I price of $4.00 is in line with the change in costs since the base period. To obtain maximum milk production, the necessary price may have to exceed that figure.

Using the same approach as in the analysis of costs and the blended price, class I prices with varying farm wage rates and dairy ration prices are shown in table 4. For example, with $65 grain and $120 wages, the estimate of the class I price is $4.45.

TABLE 4. ESTIMATED CLASS I PRICE OF MILK IN NEW YORK
Based on Varying Farm Wages and Prices of a Dairy Ration

Farm wages per month	$100	$120	$140
Price dairy ration per ton	Class I Price (July to March)		
$60	$4.00	$4.45	$4.75
65	4.15	4.45	4.90
75	4.30	4.75	5.05

General Considerations

Management allowance. It should be kept in mind that in the foregoing estimates of costs, all farm labor is figured at hired men's wage rates. Not only is "cost plus a profit" excluded, but no management allowance for farm operators has been included. With a large amount of capital per operator, in periods of falling prices and low employment this would have little effect on milk production, but under present economic conditions it is important.

Availability of production materials. In these estimates, it was assumed, naively perhaps, that machinery, equipment and miscellaneous materials are available for milk production.

Index numbers. Ordinarily, index numbers are useful to measure changes in economic conditions. Under present war conditions with shortages and reduced quality of many farm items, they fail to reflect fully the changes in actual farm costs and should be so interpreted. For instance, the index numbers of current farm wages and farm machinery prices show the changes in these items compared to the base period, but they do not reflect the actual cost of getting the job done.

Milk production and prices. Dairying is one of the most stable types of farming. Unlike the potato acreage or even poultry numbers, milk production can be adjusted only slightly from year to year. During recent years, a good job has been done in the New York milkshed in keeping milk prices and production costs in reasonably good adjustment. A continuation of this forward-looking procedure will serve the interests of both milk producers and consumers. One phase of the pricing problem that needs more attention is that of seasonal prices to producers. Low fall and winter prices relative to spring prices of milk tend to encourage a shift away from year-round milk production. This is, of course, undesirable from a long-time standpoint.

Summary

In 1942-43 the average year-round cost of producing milk on representative groups of farms in 4 areas of New York was $3.01 per hundredweight. The average price received for milk was $2.89.

The return to labor used in producing milk on these farms averaged 33 cents per hour. Although this return compares favorably with other years in dairying, it is too low relative to city wages to give stability to the labor force on dairy farms.

Based on expected economic conditions, the estimated cost of producing milk in the year ahead amounts to about $3.80 per 100 pounds. This is based on $60 a ton for grain, $15 a ton for hay, $6 a ton for silage, and wages of $100 per month.

Because of the disparity between farm and city wages and the critical grain-livestock situation, it may be necessary to bid more than these rates to get the labor and feed to keep up milk production.