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# Miscellaneous Staff Contribution of the Department of Agricultural Economics

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# THE DAIRY OUTLOOK

(Charles E. French, National Dairy Council,
Louisville, Kentucky, February 6, 1961)

## Introduction

An historian is duty bound to accuracy; a reporter to perception; and a forecaster must have both. Moreover, it seems to me a forecaster must lean upon humility, and a bit of intuition is quite valuable if he happens to possess it. It is in this spirit of humility with a nomimal undergirding of confidence that I approach this subject.

My comments will be somewhat philosophical. I hope they are couched as carefully in the environment of facts as were those of Dr. Keezer. I hope my errors are honest, and studious ones, at least.

My comments may appear critical. Basically, I intend them as self-analysis. I consider myself one of you. Someone has said, "Self-criticism is a luxury which only a very successful society can afford; less fortunate people are too poor to denounce themselves very vigorously."

Basically, I am an optimist. My philosophy is bound up in the fact that I would rather be living today than at any time in recorded history. Abraham Lincoln more than a century ago noted, "If destruction be our lot, we must ourselves be its author and finisher. As a nation of freemen we must live through all times, or die by suicide."

## The Short-Run Outlook

First, the short-run dairy farm outlook. Dairy prices during each of the last five years have been low enough to call forth a 6 percent reduction in the number of farms selling dairy products, but high enough to create a surplus of from 5.8 to 8.7 percent in non-fat milk solids and 2.8 to 5.4 percent in butterfat. This apparent paradox is basically a problem in conflict of interests between an individual farmer viewpoint and a total industry viewpoint. An individual farmer

seems to have no alternative but to use output-increasing technology to reduce costs. As he does, he adds his increased production to that of his neighbors. This total quantity plays against an inelastic demand where small increases in quantity bring rather severe drops in price. The seriousness of the problem results because we have many rigidities and impediments to moving resources out of dairying. Price pressure from such a situation persists. In face of this, the government has tried to maintain incomes for dairy farmers by support prices. Large quantitites of butter, cheese, and powder have piled up in the government's larders as a result.

Supplies are starting to build up for next year. Production in 1960 was up something like a billion pounds over 1959, barely short of the 1957 record of 125.9 billion pounds. Cow numbers have been declining, but the rate of decline is slowing. Dairy heifers were up 3 percent in 1960 after six years of decline. Number of dairy calves kept back was up for the second year after six years of decline. Rate of culling is declining some. The stage seems set for a converging of downward trends in both the hog and beef cattle price cycles. Such will result in some shifting of resources into dairying in the Midwest.

Commercial demand for dairy products in 1960 will probably increase less than the natural population increase. Per capita consumption of dairy products has declined in all years except three from 1945 to 1960, being below 700 pounds for the first time in 1960. The seriousness of this situation is obvious when we realize that it was almost 900 pounds in 1942. Butter consumption per person continues to slide. Lower incomes will hurt ice cream and fluid consumption this year. Some see hope in the cheese situation. But, on balance, it looks as if per capita consumption will ease off some more this next year. Only the upward movement in population will ease the pain on the demand side next year.

Prices to farmers and consumers will push against support levels to be announced. Pressures are there for increased surpluses at current or higher levels of supports. If supports are raised 15 to 20 cents, we will certainly buy increased

amounts. Part of the improvement in farm prices via the support route may be offset by lower superpool premiums.

Farmers will probably handle more money this next year, but they will do well if they keep as much of it as they did last year.

Now, a quick look at the short-run outlook for plant operators. Almost no change has occurred for three years in the cost and sales picture for plants that have stayed in business. We, of course, have continued to lose some plants, but for those that have survived, records will show a rather similar pattern for the last three years. Some 80 fluid milk plants supply records which are summarized quarterly by the USDA. They made 38 cents/net income before taxes in 1957, 38 in 1958, 39 in 1959, and 35 in the third quarter of 1960. A slight increase in milk costs was offset by a slight decline in cost of other ingredients. Operating costs, by item, remained practically unchanged. Concerns will do well to hold this position, and the mortality rate, especially of small plants, will continue to hold at about its present level. We may get some cost relief in salary and wages, but not much. A satisfactory plant at the end of the year will probably have grown some and will have cut costs some--at least enough to offset slightly lower selling prices due to slackening of consumer demand resulting from lower consumer incomes.

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## Longer-Run Outlook

First, for the longer-run outlook, let us look at our ability to sell dairy products. The almost uninterrupted slide in our consumption for two decades is a matter of real concern. The loss of 132 pounds milk equivalent per person from 1935-39 to 1960 multiplied by 177 million people gives 23 billion pounds of milk. This would have added nearly 20 percent to last year's consumption. Think what that could have meant! We are talking about a surplus of three to possibly six percent while we have seen a slide in per capita consumption of nearly 20 percent.

J. Walter Thompson Company expects per capita buying power to be up 24 percent between 1959 and 1970. Expenditures for necessities, however, will be up only 8 percent. Thus, food and necessity items are going to have a difficult time competing in this market even under the best circumstances. My best estimates are that we will need about one-third more milk by 1975. This is based on population increases because we will do well to hold today's per capita consumption levels.

What about our ability to produce this milk? I have no doubts, whatsoever, about our ability to produce this milk. We have not stretched our production plant in dairying. Probably not even as well as elsewhere in agriculture. Total agricultural production was up 29 percent from 1947-49 to 1960; feed grains, 42 percent. Dairy production was up 9 percent.

We have cut the number of farms selling dairy products by 50 percent in ten years. Even if level of efficiency may look a bit weak relatively, it is still plenty good to do the job. Also, we could easily put more resources into dairying if we needed to.

Most production improvement in dairying has come by improved production per cow. My production friends tell me that considerably less of this has come from genetics than from improved nutrition and management. Presumably we still have much we can do on the genetics side. I am also optimistic about probable improvements in nutrition. Actually, much of the improvement in production has been through changes in nutrients fed cattle. Unfortunately, with a higher proportion of higher cost concentrates. We have not had improvement in nutrition of dairy cattle comparable to what we have had in beef cattle. A research breakthrough here may be in the future. Much research is being done in this area; some of it will probably be productive. Our capital requirements for dairying have gone up about one-third in the last few years; labor has gone down about 20 percent. Such mechanization probably means greater efficiency.

The increase of one-third in milk needed will be produced with as few if not fewer dairy cows than we have now. This will certainly mean a continued drop in number of farms, probably at least another one-fourth.

## Some Implications

An outlook such as this has some definite implications. First, for farmers.

We are going to have fewer "home use" cow herds. The one-and two-cow, subsistence herd is fast disappearing even though we still have many of them. Such farms will go the way of linsey-woolsey, the potato patch, the butchering hog, and the less-than-instant cake recipe of yesteryear.

We will have fewer sideline dairy enterprises. We hate to admit why we have cows on many Corn Belt farms. They are there simply because they are good users of roughage--roughage which we have had to grow because we needed the nitrogen which gave us fertility which in turn gave us good corn yields. We have learned how to buy nitrogen on many farms cheaper than we can raise it. The result, less need for many sideline dairy enterprises throughout the Corn Belt.

We will have more off-farm employment for both dairy farmers and their wives. In part, this is a phase in transition so far as the long-run is concerned. But in the short-run, it will tend to dull the price responsiveness necessary for needed dairy adjustments.

We will have an all-out onslaught on costs. Economic laws are cruel. Like it or not, such an outlook as predicted above mandates cost reduction. Roughage production and handling costs must be reduced. We will continue to try to cut costs with improved cows, especially through genetics and better roughage conversion efficiency. The Dairy Herd Improvement Association summaries of last year showed a net profit of $64 for an 8000 pound production cow and $145 for a 14000 pound cow.

We will have a growing research consciousness. Once I asked one of our really good farmers why he considered himself to be a good farmer. He said, "It

is because I am always a little bit more up-to-date and I try things just a little sooner than my neighbors". Farm research expenditures are up two times in the last ten years. Much of it we take for granted. More of the dramatic and more fundamental type of research will be picked up and used. Some interesting implications here. For example, we reportedly have a chance to annihilate flies by sterilizing them. Solar energy for grain dryers, farm plans by digital computers, wet storage of grains, possibilities of controlled sex in dairy offspring are all items mentioned in a recent research report. Some will go faster than others. Research reportedly shows wife-cared-for herds with less mastitis than husband-cared-for ones. Farmers will not let such things go unnoticed!

We will continue to get some adjustment in product. We have had a 5 percent decline in the fat content in the last 10 to 12 years. Had we not had this, the support program would have buried the government in purchased products. It is interesting that we have been able to adjust fat content this much in this time with somewhat nominal price incentives. Breeding opportunities should allow a speedup here.

We will have larger farms but they will be basically family-oriented. Several recent studies suggest that a 30-to 40-cow operation will spread labor quite well and that probably a 100-cow will spread the capital. We had a rather sizeable increase in the number of 50-cow and over herds in the last census, but the focus is still on family-oriented dairy operations.

We will have larger marketing organizations. Bargaining coalitions for purchasing as well as for selling may be the vogue. The biggest development of modern dairying is increased bargaining power through various coalitions. Expect increased effort here, but we may also see some interesting developments on the purchasing side. Purchased inputs have gone up 50 percent while non-purchased inputs have gone up only 30 percent in the last two decades. Agriculture is now one of the highest capital using industries and two-thirds of agricultural production inputs are affected by the terms of trade.

What are the implications for over-all industry organizations? First, the public ones.

The biggest public problem of dairy farmers may be whether to organize for direct supply management or not. This subject is being discussed quite widely around the country. Everyone in dairying should be familiar with it. If we go directly to supply management by quota or other systems, public institutions must be altered. Interest in this type of direct approach is obvious around the country. I doubt that we are near acceptance of it, but the decision is yet to be made. Present Administrative thinking can bring such a decision sooner than some have expected.

Another public problem will involve possible improvements in federal orders. Federal orders now cover 40 percent of the milk sold in this country. The federal order program doesn't appear to be in for a major overhaul and possibly it doesn't need to. However, it has been continually changed and adjusted to the times. Drastic marketing changes of the next few years are probably going to mean even more material changes.

Some re-evaluation of the rules of operation for cooperatives appears to be obvious. The question is basically how far they should push within expected levels of social control. Cooperatives have had little indictment relatively and it has long been held that society has given them certain areas of rather wide economic latitude. They will push out farther to test how far society will allow them to go. The other big area here involves the type of alignments they can make with other institutions. Most of the trouble which cooperatives have had with the law in the last three or four years has been caused by the alignments they have had with other institutions not as exempt as cooperatives in the areas under fire.

The overall model of competition in dairy marketing will be evaluated, especially to clarify the place of small businesses. I have real concern about the competitive environment necessary for this period ahead. Different types of institutions have

different advantages. For example, I am not sure that we know what the advantages of a single-firm, independent dairy is as contrasted to the national chain. We don't know what the proper balance should be and we will evaluate it. I was interested to note that one-third of the Harvard Business School graduating class this year wants to work for small businesses. We must face up to some really searching questions in this area.

What about the private industry institutions and their place in this picture? I am talking here about organizations such as National Dairy Council, American Dairy Association, and various trade association groups.

First, these organizations must face up to the fact that demand for dairy products is in trouble. Yes, we have been making counter statements. But, have we been aggressive enough? The average person in 1960 ate 1488 pounds of food. But, 48 million Americans were reportedly overweight. Probably many others think they are. Like it or not, the same breath today utters simultaneously "food" and "obesity". The merits of the case are important. The economic life of butterfat and others may be hanging in the balance. Yes, and in the long run, the merits of the case will do much to render an equitable verdict. But we live in the short run and this thing appears to be snowballing fast to the detriment of the dairy industry. We may have to take a more aggressive and positive approach to this problem than we have in the past.

Puritanical reasoning makes obesity akin to immorality itself. This makes for a serious problem indeed. Dairy institutions must sell the beauty that lies in the virtue of milk. Beauty portrayed in vigor, strength, health, refreshment, and economy. Yes, economy. Food is a good buy and milk is among the best. Let's educate from strength, not from fright. It seems to me that it is time that we took more of a position on the offense and less on the defense, if you please. An organization such as the National Dairy Council should probably speak softly, carry its test tube high, and keep its book open. But it may also need to carry a big stick.

New products may hold the key. The attitude of shock within dairy circles about certain new products, especially those with diet implications, seems old-fashioned and short-sighted. Americans like and can afford new things. If they believe for any reason at all that they should take a certain oil in a fruit juice, it may not only be a humane thing but an economical thing to give a more palatable product to accomplish the same thing.

These associations must do a better job of selling agriculture in general. Our public relations job is tremendous. The next few years are going to see the minority position of agriculture hurt agriculture as never before. We have not suffered severely from this in the past, but the time seems uncomfortably right.

Great nations rely on small amounts of resources in primary industries. Yet, this makes for an important agriculture as agriculture declines in number of people in it. We must get away from measuring agriculture in numbers and think in terms of its relative importance.

We must make the case that food is a good buy and that it is cheap. For instance, in one recent publication of the Department of Agriculture the following facts were on one page: "Americans pay about the same share of their incomes for food now as before World War II--and they are eating more and better foods". "Three 'ready-to-serve' meals cost a family of four $6.70. Prepared at home, these meals would cost only $4.50, but require four hours more work by the housewife". "Of every $20 spent on groceries, $1.50 to $2.00 goes for packaging--to keep the food in good condition and to draw the consumer's attention to the product". "One hour's factory labor in 1959 bought: 2.1 pounds of round steak, 3.3 pounds of bacon, or 17.6 pints of milk." "Food's still a good buy. Since 1947-49, the cost of food has risen only 19.5 percent compared to transportation costs, 46.1 percent; rent, 41.4 percent; fuel, 36.3 percent."

Facts like these cannot be kept from the general public.

Dairy institutions must aid in the basic adjustment problem of agriculture. We have an adjustment problem, let's face it. Only one of our farm boys out of each ten will find room on the farm. We probably need about 10 million in marketing, 6 million in supply industries, and $7\frac{1}{2}$ million on our farms. The nine that leave the farm must make major adjustments. If they have their rightful opportunity, education must be our front line of defense--the major component of any adjustment program.

Educational attainments in our labor force are going up. If our farm boys are going to compete, they had better face up to this fact. In 1940 only one-third of our working force had four years of high school; now more than 50 percent have it. Less than 6 percent had four years of college in 1940; now, nearly 10 percent. The average number of years in school completed by the peoople in our working force in 1940 was about 9; now, it is about 12.

The problem is much more acute on the farm side than it is in the cities. The rural farm areas had 36 percent of the population between ages 16 and 24 without high school degrees in 1959; the cities had only 22 percent. The types of jobs to be most in demand in 1970 are almost without exception those requiring a much higher degree of education. For instance, professional and technical jobs are expected to be up 40 percent by 1970. Number of proprietors and managers are expected to be up 23 percent and skilled craftsmen up 23 percent. Professional and technical workers now average over 16 years of school; proprietors and managers over 12 and skilled craftsmen, 11. In contrast, predicted needs are for 17 percent fewer farm workers who are now averaging less than 9 years of school.

We have had some studies recently on the value of education. We don't know exactly what it is worth, but these studies suggest that a high school education is probably worth some place from $50,000 to $65,000 more than an elementary school education and that a college education may be worth at least $100,000 above that.

Other research suggests that graduate study for those qualified is worth

considerably more than that. Of course, the money value may be a small part of the true value of education.

## Summary

Thus, the outlook I paint is not pessimistic. It is challenging. It has definite implications. Some adjustments seem to be well charted; others are not. The future is basically what each person in dairying makes it. Some will find dairying rewarding, some won't. My wish for each of you is that you may exceed even my most optimistic prediction. Forecasters like to err on that side of the ledger!