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8-59

Dairy Marketing Trends and the Future

(Remarks of Charles E. French at Indiana State Dairy Association Annual Meeting, December 2, 1957)

My remarks today will emphasize the future, but we will take a few fleeting glances at the past. "The future" in most cases today will mean 25-30 years. Setting this rather far-distant target has some advantages. First, memories are short. Second, such a distance makes it important to decide whether your direction is up or down. Third, this amount of time establishes an appreciation for the total effect of many small, accumulative changes.

I am going to give 15 rather disorganized thoughts concerning marketing trends and the future. I am not trying to say whether these trends are good or bad. I am merely trying to evaluate the extent and nature of them.

Fifteen Thoughts

1. Declining Number of Marketing Firms

The number of dairy manufacturing plants in the United States declined rather sharply between 1947 and 1954. For instance, number of butter plants declined 34% cheese plants 18%, condensed plants 20%, ice cream plants, 6%.

Fluid milk plants in most states have also shown rather sizable decreases. Between 1950 and 1956 the number of fluid plants in the following states showed these decreases: Montana, 70%; Wisconsin, 46%; Ohio, 34%; Maine, 32%; California, 27%; and New Jersey, 5%.

We have had some rather sizable reductions in licensed plants in Indiana. For instance, the following data are somewhat revealing:

Number of Licensed Plants	1945	1955
Butter	23	13
Milk	246	120
Cheese	22	14
Total	410	265

With an increasing volume of business plant size must go up as numbers go down. In 1937 the average Indiana plant processed less than 6 million pounds per year. Now it processes nearly 3 times that. We will see considerably more of this. If I were a producer I would look carefully at the number of plants in my area. I would look especially at the particular type of plant to which I was shipping. Some farmers may wake up some morning to find they no longer have a market. This may be especially true for those farmers who are not members of a cooperative association which tends to build long-time marketing contracts.

2. Increased vertical integration.

Basically, by increased vertical integration we mean the extension of the effective area of control by centralized management. This means that by some arrangement, management control moves from the consumer back to the producer, or vice versa.

Vertical integration is not new but the form this time will probably vary from what it has been in the past. Also, the degree of vertical integration is certainly going to be more severe than we have normally conceived of it in the past. The dairy business was integrated when it had producer-distributors, but this will be a different type.

There are examples of increased activity in vertical integration in the dairy industry. It is rather common for the chain supermarkets to own certain manufacturing dairy facilities. Many of them have been in the ice cream business for some time and you are familiar with plants such as the ones Kroger Company has for bottling milk. Also, on the West Coast it has been rather typical for supermarkets to own a dairy bottling plant or a dairy bottling plant to own a supermarket. At least one of the major supermarket chains is planning increased activity in the area of fluid milk processing. Also, in at least one part of the State certain large independent retail grocers reportedly are planning to set up their own processing plant. Bargaining associations serving this State have recently moved more into fluid milk distribution.

Farmers most certainly must ask the question of where cooperatives fit into this plan. There is some apprehension that the farmer is being reduced to serfdom and hired man status under this type of arrangement. Some see the cooperative as one way by which farmers can retain control over these developments and protect themselves as managers.

One thing which seems to foster vertical integration is a growing philosophy that marketing institutions are the guardian of the consumer. Marketing institutions tell the consumer that the desired product will be produced by farmers or the marketing firm itself will produce it. These may be self-appointed guardians but this is a prevalent philosophy which will foster vertical integration.

3. More Marketing Services

A well established and overpowering characteristic of American consumers is their unsatiable wants. Not only do the people in this country have an unbounded area of wants, but they also have the money it takes to satisfy many of these wants. The President's advisors tell him that our 1975 personal income should be up by 50 percent. This means that we must certainly expect the American people to want and to buy more and more.

We will need at least one-third to one-~~fourth~~ half more workers in marketing in 1975. Thus, the marketing job will become larger and larger; the farm share in many cases must shrink. The philosophy that the marketing share is an excellent measure of the efficiency of marketing is misleading. We may have an efficient marketing process with a very small share of the consumer's dollar going to the farmer.

We must recognize the difference in the demand for food and services. A recent Agricultural Marketing Service study showed that the services which go along with food are 5 times more responsive to income change than is the food itself at the farm level. We are marketing two products when we market food. Many marketing firms can now ignore the farm completely and some of our so-called food items do not require farm raw materials. This has been a rude awakening for

some farmers who have felt that they could ignore the marketing structure and the services that sells along with the food.

4. Growing Emphasis on Countervailing Power

The most evident characteristic of American industry is its tendency towards large scale. Let us take a look at this in the dairy industry. In 1954, the following companies controlled these percentages of the value of all shipments.

Type of Industry	Four Largest Companies	Twenty Largest Companies
Butter	16	34
Cheese	25	39
Concentrated Milk	55	80
Ice Cream	36	57
Fluid Milk	22	36

Most of this growth in countervailing power has been by merger movements. It is reported that up until 1948, 60 percent of the growth of National Dairy Products Corporation and the Borden Company came from over 700 mergers. Of course, the chain organizations have not been the only ones in the merger business. Actually, most of the mergers in the last few years have come from organizations that are not national chains. These are the plants that have merged with one, two, or very few other plants.

The growth of unionized labor is also calling forth countervailing power. The processing industry has been somewhat slow to unionize, and many of the processing plants are not now unionized. However, unionization will continue and as it does, management and farmers must recognize the importance of having countervailing power Any time that a particular union can shut off, for instance, product containers, this will mean that almost all of the entire operation must close down.

Small or divided coops cannot stand in this type of countervailing activity. For 1955, National Dairy Products Corporation and The Borden Company are reported to have had sales of over 2 billion dollars. This was 60 percent greater than the total net sales of the 1600 local and regional dairy coops other than the bargaining coops.

5. Pyramiding of Research Endeavors

Labor is becoming a smaller part of production processes in the marketing area, but it is still the largest individual cost with the exception of raw materials. We will see increased activity to improve production techniques of labor use.

Processing plants have been fairly slow to industrialize, but we now see pyramiding of research work which should bring about substantial quantities of automation and industrialization in the food processing industry. Farm adjustments which go along with this type of industrialization in many cases may be largescale. For instance, bulk milk handling may be necessary for certain automatic plant processes.

6. Wider Variety of Products

Consumer demands are calling forth an extremely large number of different products and the dairy industry in most cases is expanding its product line. Use of nonfat has been a big one and more will come. We still have 20 percent of the nonfat part of milk which is not used for human food. We have developed such products in this area as lactose from cheese whey. This is one of the large food items for our baby crop. We will come up with a satisfactory concentrate milk, and this would seem to be a natural target in a product as bulky and perishable as milk. All the technical and economic problems here are not solved yet, but this development could have far-reaching implications on the relative profitableness of dairying in different parts of the country.

The sequential nature of dairy processes is another target. We have to do many things, one after the other, in the dairy processing business. A highly seasonable product like this calls for many inefficiencies. We have had released recently a new product called sweetened cream. This may allow us much more flexibility in making ice cream. Reportedly, it will hold for 6 months at a very low storage cost, in the neighborhood of 70 degrees, and may last for as much as a week after it is opened.

We may come up with a frozen milk. This would seem to be another rather logical target and fits into the general trend in food processing. For instance, frozen foods were up 5 times in volume from 1947 to 1956. Milk is a product which in many of its characteristics resembles fruits and vegetables. Most of our frozen food volume is in fruits and vegetables.

This morning's mail brought reports of waste disposal from dairy plants being used in California for fertilizer. This emphasizes how far we are expanding our product line.

7. More Aggressive Development of Substitutes

Just two sobering facts about the development of substitutes. First, between 1937 and 1941, butter and total edible vegetable oils production were the same. In 1957, vegetable oils were more than 4 times the production of butter. Second, in 1940, 62 percent of our edible fats came from animals. In 1956, this had dropped to 46 percent.

There are no sacred consumer items these days. Consumers in general do not feel bad about buying substitutes. In fact, they are somewhat proud to find a substitute which in their opinion gives them more for their money. Today's consumer for the most part holds very few items as sacred.

The nonfat part of the milk is not sacred either. Much research is being done to develop substitutes for this part of milk and it is quite possible that research will come up with something in that area.

Many of the newer types of dairy substitutes are being handled by the dairy industry itself. Vegetable fat ice cream is a good example. Much of this Mellorine is produced and sold by the dairy industry.

8. More Work on Health Implications of Food

Dr. Peterson, in his pioneering work at Minnesota, has certainly shown us the possibilities of using protective milk. This could open up a whole new avenue of thinking so far as food is concerned.

We have had a considerable amount of thought and research on the effects of fats on human health, particularly in the area of cardiac impairment. It is too early in this game to see who is going to gain and who is going to lose. But this could scramble the value of foods considerably. The dairy industry has always enjoyed a rather unique and somewhat enviable position in so far as health implications are concerned. For instance, the butterfat in milk, was for many years recognized as the main source of vitamin A. This picture changed almost immediately when we learned to synthesize Vitamin A, and substitute manufactures could for one cent a pound put more Vitamin A in a pound of oleo margarine than butter had.

We must remember that health implications can be both long-and short-run in nature. It may be generations before the real effects are known. This is an extremely difficult area in which to do research, but as I understand it, we are now finding animals which react very similar to humans. This makes it possible to kill the experimental subject, and thus facilitates long-run research in food health. This could speed up many of our marketing trends insofar as they are influenced by health aspects of the product.

9. Changing Distribution Methods

Best estimates show that for the country as a whole we package about 50 percent of our fluid milk in paper containers, and sell about 50 percent at wholesale stops. We will probably continue to move more in the direction of wholesale delivery and larger containers. I am not at all sure that either paper or glass containers are sacred in the milk business.

Many dairies these days operate with what we call a vendor arrangment. This is basically an arrangement in which the company lets a large group of small, former plant operators distribute their milk for them. In most cases these vendors actually take control of it and sell it for an additional mark up.

One of the largest break throughs in milk distribution was every-other-day delivery. We are moving now to less than every-other-day delivery, and deliveries will become fewer and fewer in number.

For instance, some small plants with 100 percent bulk pickup are considering the possibility of picking up one day, processing the next and distributing the next.

We will probably have more price competition for the next few years. I am not sure how long this will last. Currently, we are getting more price competition in many of our smaller towns than we originally had with only one or two dealers. As plant numbers decline, a problem will build up in this area.

We will work on increased availability of milk by such devices as school lunch programs, vending machines and this type of arrangement. However, we will not increase materially the volume of milk taken by these methods. They are important and we will continue to develop them, but some people are overrating their effect.

10. Development of National Markets

The isolated food market is disappearing. Milk most certainly moves these days. It was a rather rude awakening to me when the Census of Manufactures recently released the fact that the food industry is no longer the largest manufacturing industry in this country. The largest manufacturing industry in the country in the 1954 Census was the transportation-equipment manufacturing industry. We are a nation on wheels, wings, and rudders.

A national market requires certain changes in types and kinds of products. This is why we are going to move toward products which have high storage life, and good keeping quality with a minimum of bulk. A national market demands a good system of grades and standards. Economics will become a more important criterion in determining these grades and standards. There will be a tendency to reduce the number of grades and standards. Possibly, we will see one grade of milk.

Foreign trade will be of little importance in terms of our national market. Although for certain individual products, it most certainly will be a factor. It has never been a major factor in total demand and will probably never be one.

11. Shifting Plant Locations

The mere fact that we are going to have fewer and fewer plants will place more

importance on the location of these plants. Large manufacturing plants will be located closer to excess fluid milk supplies. Many manufactured dairy products in this country are produced from surplus fluid milk. As we continue to upgrade our milk and create excess supplies of grade A milk, this will become more important to the manufacturing interests. This will mean continued decentralization of manufactured dairy products.

Cream sales will continue to disappear in this part of the country. We are now basically a whole milk producing state. The next few years will squeeze out the rest of our cream sales. It will also work hard on squeezing out manufactured milk in this part of the country. Side-line dairying in Indiana will decline as we are learning to buy nitrogen cheaper than we can raise it. We, thus, eliminate the necessity for our side-line dairy enterprise which has been used to eat the roughage which we had to grow to get the nitrogen.

There will be a tendency to locate some plants nearer production. We can now handle materials in bulk quantities and this allows us to move back to the production area and put off, at least for a while, the problems of unionized labor. Bulk tanks on farms seem to be a natural part of this trend. They are a necessity in certain plants as they are now being located. The emphasis will continue to be on bulk tank procurement.

12. Changing Patterns in Storage

Importance of sequential production processes may decline. This has probably been the most dominant factor of milk production since we learned to preserve milk by souring or churning it back in Biblical times. It may be easier for us to alter modern storage methods than to regulate the seasonal nature of production. We have tried for years to even out seasonal milk production, and apparently from recent USDA studies we are making some progress. Possibly we are working on the wrong end in this particular thing. Storage has become cheaper relative to some production factors. We may start to work on this problem at the storage end rather than at the farm end.

We have gone through somewhat of a cycle in storage. At one time we knew only how to store warm and dry. Refrigeration taught us to store cold and wet. Now, radiation sterilization and such things take us back to warm dry storage. The trend is to develop more and more storage. It is not unusual these days to find a plant with 5 or 6 times the amount of storage capacity it had 5 years ago. This is being facilitated by a shift toward shorter work weeks, and the necessity to start work early in the morning.

13. Growing Importance of Labor Relations

Unionization of plant labor will continue. This is taking us into some problems which we have not experienced before. They are not divorced from the farm. For example, this is the reason that some independent grocers are considering seriously the possibility of getting into the milk business. Labor unions have brought about a high commission rate for unionized route salesman. At times these rates have not recognized the economies of large stops. As a large independent supermarket grows, it gets to the point where its milk delivery bill appears high. The stores then set up their own processing plant in order to reduce high distribution costs. Of course, over the long-run unions will not overlook these plants either.

Labor is becoming a smaller part of the marketing cost but still a major one. As it becomes smaller relatively, it may become more critical in nature. It will be critical because it will be highly specialized and each man will be necessary to operate a growing number of machines.

The effects of labor unionization will filter down to the farm. There will be continuing attempts to unionize dairy farmers. This will not run rampant, but certainly it has had a shot in the arm in recent years.

14. Increased Governmental Regulations

We must develop some new pricing methods. Most certainly, the definition of a marketing area is one of the big problems. I anticipate that the federal order program will continue, but it will need some adjustments. There is some current

thinking that we should consider the New England type of pricing in the Midwest. This tends to put more emphasis on the general economy and less on manufactured milk prices. We may need certain new tests, particularly for butterfat, if we are to do some of the things proposed in pricing. We must scrutinize more carefully the price quotations so important in the pricing mechanics. In order to make the federal order program work, it must be divorced from the concept of over-all production subsidy.

We will have increased governmental activity in subsidized milk consumption. School lunch programs, armed forces milk, distribution overseas and this type of thing will be subsidized even more. In recent legislative sessions, this has been one of the few areas with almost unanimous bipartisan support.

We will also have continued governmental activity in subsidized milk production. Milk has a highly inelastic demand which is probably becoming more inelastic. Milk production resources are quite immobile and have a minimum of alternatives. Almost all of the technology which individual operators find useful in reducing costs is output-increasing. This combination gives a price pressure problem which will call forth a certain amount of public support.

15. Less Emphasis on Marketing in Farm Programs

The present problem in dairying is at least as much a farm problem as it is a marketing problem. The marketing system can handle the policy if it knows what policy exists. For example, State Department and the Agriculture Department must make up their minds whether the marketing system is to dump dairy products on the world market with a two-price program or not. The marketing system can implement almost any type of subsidy program which the federal government wants to set up. However, the marketing system as such is not the place to establish the level of supports or the policy behind the support legislation. Certainly we need to increase our marketing and pricing efficiency. Also, we need a certain amount of market development. However, this does not mean that we should expect the marketing system to solve entirely the "farm problem." The marketing system is essentially

a facilitating organization, and not a subsidy organization.

Summary

1. Marketing is dynamic. For years we taught that it was somewhat static. It is not unusual to find in our marketing text books that farmers can do so much less about marketing than production. This is embarassing. Today farm organizations can and do affect marketing. They must be close to the marketing problems. To stay close is a job. It is somewhat akin to the second law of thermodynamics which I understand says essentially "that it is difficult to push something that is moving faster than you."

2. Changes in marketing are usually evolutionary in nature. We have very few large revolutionary changes in marketing. However, the very continuity of the many, many, small evolutionary changes is deceiving. Therefore, when you look 25 to 30 years ahead you are surprised how far these changes will take you.

3. The problems of marketing and farm production are interrelated. Most solutions make more sense when a bipartisan point of view is taken by middlemen and farmers than when the old "dog-eat-dog" approach is taken. Certainly, there are directly opposing interests. However, many of these problems have causes which are mutually advantageous or disadvantageous to both parties. Thus, there is great opportunity for bipartisan approach to problems which appear to be essentially marketing, but which may have their ultimate effects more nearly on the farm.

4. Farmers tend to be less well informed on marketing problems and solutions than on farm problems and solutions. It is not enough to condemn the middleman. This is not enough, even if you decide to take over his job, and I am not saying whether you should or should not. But, if you do, at least know what you are taking over. It is mandatory that farmers today know marketing inside and out.