

The Past and Future of Dairying *

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History, they say, repeats itself, and the economist adds that business moves in cycles of more or less the same pattern. Consequently, in presenting a subject dealing with the future of dairying it seems appropriate to delve into the past with the hope that its experiences may be of some value in making plans for the future.

For the past ten to twenty years there has been a tremendous amount of research work carried on in all phases of the dairy industry. Much of this work has been stimulated by the problems at hand. Scientific studies dealing with chemical, bacteriological, and engineering problems related to dairy products have given us valuable information. However, the greatest problems confronting the dairy industry today are economic and sociological. We must study our problem then from these angles and endeavor to evolve solutions which will meet exigencies that are becoming more and more apparent.

BEGINNINGS OF DAIRYING IN ILLINOIS

May we go back to some of the early history of dairying in Illinois to see if we can find any clue to our current problems.

About 1813 - 1818 (at the close of the War of 1812) the settlers again began to come into Illinois. This was due to two reasons: one was that the government gave the soldiers land grants in lieu of pay; and the second, that the farmers of the east were moving westward seeking fertile lands. In the early part of the 19th century, the agriculture of New

York was primarily that of grain farming; but with constant cropping the farmers soon realized that it was necessary to bring livestock into the picture in order to maintain the fertility of the soil. Some farmers did this but other pushed westward to Ohio, Indiana, Michigan, Wisconsin, and Illinois, seeking new lands and new opportunities. These pioneers settled along the Fox River and although they did bring some cattle with them, they were primarily cereal farmers. In a statement made in 1831 by a certain Mr. J. M. Peck, he says, "Cows in general do not produce the same amount of milk nor so rich a quality here (referring to the Middle West) as in New England." Wheat, corn, and hogs were the crops which could be sold for ready cash and quickly repaid the early pioneer for his efforts. Soon, however, in Illinois as had been true in the East, the constant cropping with grain had a telling effect upon yield and as time passed the crops became lighter with each succeeding year until it became apparent that raising of grain did not pay, and many were of the opinion that the land in northern Illinois would never again repay the farmer for his efforts.

In this same situation the New York farmer had turned to dairying which they promoted with the firm belief that the western states would never compete with them in this industry. But in about 1845 to 50 some of the more progressive farmers of northern Illinois realized their predicament with regard to the fertility of the soil and they too turned to dairying. Herds were enlarged beyond the size needed for the family supply of dairy products. Buttermaking became one of the household duties and each

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family produced enough for its own use and a surplus which was exchanged at the store for what was then known as "store pay". There were no market quotations, and since the producers were completely at the mercy of their buyers, the prices were low.

ORIGIN OF CHICAGO MILK SHED

About this time Chicago was realizing a phenomenal growth from a mere handful of fur traders in 1830 it became a city of 800,000 by the year 1850. Not the least of the problems arising from this rapid growth was that of the city's milk supply. Early in the year 1852 newspapers began to expose the conditions under which much of the milk used in the city was being produced. The inhabitants were shocked to learn that most of the cows were being fed from distillers' and brewers' wastes and were being housed under very insanitary conditions. The solution to both of these problems was found in the idea conceived by Mr. Phineas H. Smith of Elgin—shipping milk from the rural districts into the city of Chicago. On February 12, 1852, he shipped his first can of milk to the old City Hotel in Chicago. This was the beginning of the Chicago milk shed. Mr. Smith was the first to attempt exclusive dairy farming in Illinois.

Supplying Chicago with fresh fluid milk proved to be a profitable enterprise, and Mr. Smith soon increased the size of his herd. His neighbors became interested and in a short time there were carloads rather than single cans of milk going into Chicago.

It is interesting to note that in the year 1857, a young man by the name of Sidney Wanzer started his own independent business of delivering milk which was the birth of the present Sidney Wanzer Company in Chicago.

ORIGIN OF ILLINOIS CHEESE INDUSTRY

Dairy production expanded rapidly for about eight years and within ten years the supply exceeded the demand. Farmers looked for an outlet and some turned to the home manufacture of butter and

cheese. However, it seemed hopeless to many because it was difficult to market Illinois dairy products in Eastern markets due to their reputation for poor quality. However, some did begin making cheese in their homes. Utensils were few and methods crude but they found a market for their cheese and butter in Elgin and adjoining towns and occasionally took a load to Chicago. The following is taken from an address by Mr. I. H. Wanzer, one of the pioneer dairymen of northern Illinois:

"We remember our first experiment in making cheese. We had, on a June morning in 1860, taken our milk to Elgin but, finding the previous day's milk had been returned with notice that they were so flooded with milk that they could not use any more of ours for some time to come, we took the previous day's milk into the wagon with that just brought and started for home. Calling at the grocery of James Knott, purchasing a large wash tub, and a little farther on to the meat market of George Roberts, and bought a calf's rennet, and upon our arrival home under the directions of Mother Herrick made our first cheese, putting it to press under a temporarily constructed press and to curing in one of the rooms of the house. We soon partitioned off a part of the woodshed and obtained a larger wooden tub, with a smaller tin tub to go inside of the wooden one, heating our milk and whey by warming water on the stove and turning it between the two tubs. Thus we worked for three seasons, curing our cheese in a part of our house."

Thus was born the commercial cheese industry of Illinois.

Later, in 1863, Mr. Herick built a small cheese factory 16 by 40 feet and purchased a cheese vat and screw presses from H. A. Rowe in Hudson, Ohio, which was the first cheese factory in Illinois.

Again quoting from Mr. Wanzer:

"Thus we labored on releasing the overburdened milk market, taking our cheese loose in wagons principally to Chicago, in warm weather going all the way by night. We remember reaching South Water Street one morning in the summer of '63. Meeting Mike Daris, who got upon our wagon, lifting the sheet that kept the dust off our cheese, offering us 21 cents per pound for the load, we closed a bargain at 22 cents, and in less than one hour had unloaded and received our pay, \$462.00, reaching home in time to do our milking that night."

The cheese industry had its commercial beginning in Mr. Wanzer's kitchen in 1860, and the first specialized cheese factory was built in 1863. By 1865 there were 17 cheese factories in Illinois and this number had increased to 46 by 1870.

CONDENSED AND EVAPORATED MILK

It was about the middle of the 19th century that Mr. Gail Borden of White Plains, New York, began experimenting with the process of condensing milk, and in 1857 Mr. Borden put upon the market for city use "Plain condensed milk." By 1861 he had introduced his article rather extensively and had established several factories, each capable of producing 5,000 one-pound cans per day. In 1865 the Illinois Milk Condensing Company was organized in Elgin. This played a very important part in dairying because it gave an additional market to milk and, furthermore, it changed a perishable into a non-perishable product that could be shipped great distances, thus encouraging greater expansion of milk production in Illinois.

BUTTER PRODUCTION

The manufacture of butter in the farm homes was developed in Illinois about the middle of the century. By 1870 producers in and around Elgin became interested in the commercial manufacture of butter, and according to Mr. Earl Garver, Dr. Joseph Tefft of Elgin was sent East to examine buildings and equipment used in the commercial manufacture of butter. The Elgin Butter Factory was built in 1870, and late in the season it began operations. Mr. Wanzer was engaged to superintend the manufacture of butter and skimmed milk cheese. It was in this plant that Mr. Wanzer, with the help of some of the stockholders' wives, made the first creamery butter west of the Great Lakes. During the second season—1871—this factory made about 80,000 pounds of butter. Thus began the commercial creamery industry in the Elgin district, utilizing butterfat; the by-product, skim milk, was made into skimmed milk cheese. The creamery and cheese industries increased rapidly throughout the

Elgin district and other parts of the state so that by 1883 there were about 400 creameries and cheese factories in Illinois.

It was also about this time that someone conceived the idea of making filled cheese by substituting lard for butterfat. This continued until the Federal law interfered, but during this time filled cheese did much to destroy the reputation of Midwestern cheese in Eastern markets of this country and also in foreign markets.

COMPARISON WITH PRESENT CONDITIONS
I have given you the foregoing because it perhaps antedates the life history of anyone here. Now may I contrast what I have said with the conditions as we find them today.

You will note that approximately 100 years ago many farmers in New York went westward to find more fertile soil for the production of grain and that the grain farmers of the Midwest soon produced grain in such quantities that it made cereal farming in New York unprofitable and these farmers turned to dairying. Then within a period of 10 or 15 years the grain farmers of the Midwest found that to maintain the fertility of their soil they, too, had to turn to dairying and at first their activities along this line were curtailed by lack of local markets and the quality of their products. It was difficult to break into the more profitable Eastern markets but the rapid development of urban centers and the interest in sanitation in milk production eventually created a market for the fluid milk produced in "the country". With this stimulus the supply of milk soon exceeded the demand and the dairyman of the Midwest sought new markets and new methods of utilizing their milk.

Now where are we today? To be sure, we are very advanced in our methods of breeding and feeding cattle, in the production, processing, and distribution of sanitary milk, and in the manufacture and distribution of other dairy products. We have very large urban areas and our modern methods of transportation have extended our markets tremendously; nevertheless, we have fundamental problems that are quite akin to those of 100 years

ago. At that time the farmers realized that they were depleting the fertility of their soils. Never in the history of this country has there been so much emphasis placed upon conservation of our productive soils as at present. To be sure, for 50 years some of the state experiment stations have advocated a system of permanent agriculture, but much of their teachings has fallen on deaf ears. Now the Federal Government, working through the state experiment stations and various soil committees extending down into every county, is promoting a program on land use planning on a gigantic scale. Their program includes the control of the depletion of fertile soils by erosion, as well as depleting soils by removing fertility in the form of crops. In a program of this kind, involving the control of soil-depleting crops, expansion of soil-building crops, use of grass waterways to control soil erosion, and the production of wholesome food for the farm family, dairying is taking a very significant position. The dairy cow is the most efficient converter of grasses, legumes, and other crops into animal products, milk, and meat, and in addition, returns a by-product to the land which will improve its fertility. Consequently, dairying in Illinois is on the increase.

COMPETITIVE DEVELOPMENT OF DAIRYING IN OTHER SECTIONS

In the land-use planning program for some of our other states, especially those in the South, curtailment in the production of certain crops, especially cotton, has resulted in an increase in those crops which encourage dairying. This is extremely significant because these new areas have become competitors for Illinois and Midwest dairymen the same as the competition which developed between the Midwest farmers and the New York farmers 60 to 80 years ago. The increased production of milk, cream, evaporated milk, ice cream mix, powdered milk, cheese, and butter by states that twenty-five years ago practiced very little dairying is changing the marketing situation of this country considerably. It is

interesting to note that for some years the corn belt states have been supplying a considerable portion of the sweet cream used in Boston, New York, and other Eastern cities, in addition to much of their butter and other dairy products. For illustration, the months of November and December have always been months of low production for the New England farmers and over a 10-year period (1930-39) Western plants have supplied an average of 57 percent of the cream used by the city of Boston during the month of November. The increase in dairying, coupled with certain economic trade barriers, is changing that situation tremendously and the Western cream shippers are rapidly losing their Eastern markets. The basic changes which are taking place in agriculture in Eastern states, together with certain stimulating effects of marketing programs, have promoted the production of milk in those states to the extent that they have no need for much of the cream formerly supplied by the Midwest.

TRADE BARRIERS

One cannot mention the trend in dairying without giving some consideration to a new factor entering into the picture—economic trade barriers. An economic trade barrier is any law, rule, or ordinance, or the act of any individual or group which will prevent or inhibit the free flow of economic goods. I speak of trade barriers as a new factor whereas they are really as old as business. In fact, so far as this country is concerned, they date back to the federation of the 13 states of the Union. When the Constitution of the United States was formulated the authors planned to regulate trade barriers and, therefore, included articles which would regulate commerce with foreign nations, among the several states, and with the Indian tribes. Article 1, Section 10 of the Constitution of the United States provides that: "No state shall, without the consent of Congress, lay any duties on exports or imports except what may be absolutely necessary for its inspection laws."

So, economic trade barriers are not new but under the new scheme of government which has been promoted in recent years, and because of the activity of pressure groups, trade barriers have multiplied in number, in kind, and complexity. Altogether too few of us engaged in the dairy industry fully realize the far-reaching effects of trade barriers that are now in existence. Many of the health regulations promulgated by states, counties, and municipalities have been adopted and promoted for the protection and benefit of the public's health. I believe that this aspect of these laws and ordinances had the whole-hearted support of the dairy industry. However, many of these helpful pieces of legislation are being misused by those who would control the volume of supply available for a market and thus create artificial prices. All of these trade barriers which tend to prevent the free flow of milk of equal quality, tend artificially to raise the price of milk to the consumer with the result that the consumption of milk by urban people, especially those in the lower income brackets, is greatly curtailed. Thus there is a loss of a market for the producer and distributor and there is a loss in health by those potential consumers. Malnutrition due to a lack of an adequate consumption of milk by many children is a definite community hazard.

CHANGING AGE LEVELS

There is another situation that is coming into the picture. There has been a definite decrease in the birth rate during recent years. For example, from 1925 to 1936 our national birth rate dropped from 21.5 to 16.7 births per thousand of population, a startling decrease. Consequently, as a people we are becoming older. We must not overlook the fact that children have been our greatest consumers of fluid milk. Therefore, if we are to maintain our per capita consumption of dairy products, we must encourage adults to consume more milk and we

must also promote dairy products which are to the liking of adult consumers because with the curtailment of a potential market and a definite increase in the production of milk and dairy products, we are confronted with a situation which can become serious.

THE FUTURE OF DAIRYING

There will always be technical problems to be solved; but our main problem today is to maintain for the dairy industry its important place in the scheme of American living. The answers to this problem will be complicated and multiple.

There is a definite relationship between food nutrients per acre and economic milk production. Consequently, those areas which are most efficient in the production of dairy feeds, especially roughages, are going to develop as leading production centers in the dairy industry. This must be coupled with a better breeding and feeding program for dairy cattle; and most important of all will be the marketing. In the year 1822 an Englishman making an exploratory trip through the new state of Illinois to see what its possibilities were for the dairy man stopped over night at a farm near Lawrenceville. In the morning he found his host greasing his wagon with "good fresh butter." Upon questioning the man explained that he might as well since it was hardly worth his while to carry it the ten miles to Lawrenceville since there he would only receive 5 cents a pound for his product and that in trade.

Whether or not the most efficient marketing will prevail will depend upon the curtailment of trade barriers, since today our transportation system is highly developed and has greatly reduced the distance between farm and market.

And finally, to keep up the per capita consumption of dairy products we must adapt our products to the desires and demands of our consumers and supply them at the minimum cost commensurate with service and quality.