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PROCEEDINGS OF A SYMPOSIUM
ON
REGIONAL RESEARCH: LESSONS FOR
A GLOBAL RESEARCH AGENDA



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PUBLIC IMPACT OF REGIONAL RESEARCH: THE DAIRY MARKETING EXAMPLE

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Introduction

The overall objective of a study by a North Central Special Committee was to evaluate North Central regional dairy marketing research in terms of its timeliness, relevance, and whether it was helpful to the dairy industry in making orderly adjustments to changes and developments.⁴

While operating within this overall framework but with parameters a bit more prescribed, this section will be devoted to a consideration of the public impact of the research which was done by the regional research committees, using the dairy industry as an example. A rather general plan of coverage will be followed in the first part, with greater specificity following in the second part.

Implicit in this discussion is the assumption that a healthy and strong dairy industry which produces a food product which is considered essential, is in the public interest. Further, if the information made available was helpful to the industry in making orderly adjustments to changing conditions, it served the public interest and its impact upon the public would be positive. This linkage should be kept in mind.

Prior to the Research and Marketing Act of 1946, the selection of projects to be supported by individual states was heavily oriented toward problems faced by the agricultural interests of that state. The problems perceived to be local, were in many cases similar to those found in other states, and this was especially true in the case of dairying. At the same time, states were reluctant to support research in marketing mainly because these problems were viewed as regional or national in scope.

After the Research and Marketing Act of 1946 was passed, largely in response to this contradictory position and the duplicative effort which was involved, the stage was set for

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⁴ Baumer, Elmer F., Robert L. Beck, Charles E. French, Truman F. Graf, Glynn McBride, Gerald G. Quackenbush and Sheldon W. Williams, Regional Research: Lessons from North Central Dairy Marketing Researchers, North Central Regional Research Bulletin 333, December, 1991.

possibly using research funds more efficiently and effectively. The era of regional research was begun, and dairy marketing researchers were among the first to use this approach. The first North Central regional research project, NCM-1, was a dairy marketing project.

During the first 25 years, all of the North Central states plus Kentucky participated in the regional projects. Beginning in the early 1970s a number of states, mostly in the Northern Great Plains, dropped out because of the limited importance of dairying in those states and changes in funding policies.

Regional Projects: Selection and Thrust

Composition of the committees changed over time, but a core group provided continuity. This assured that the problem-driven orientation and selection of research projects continued strong over time. This required a special sensitivity on the part of committee members to problem recognition as they emerged and even more capability in sensing problems before they emerged and had become full-blown and were adversely impacting the industry and the public.

The unifying element in all the research projects was, thus, problem identification and the seeking of solutions. Appropriate research methodology was always used and problem-solving was always the ultimate objective.

Researchers had to be especially adept at choosing methodology that was appropriate and in using it properly. This was more essential in this case than others, perhaps, because of such a wide audience for the results. The audience included other researchers and professionals, farmers, processors, marketers, public and private customers, policy-makers, policy administrators, and the general public--a keen and increasingly knowledgeable consumer segment.

Basic areas covered in the research projects were policy, pricing, product characteristics, consumer preferences, and changes in industry structure.

The following research projects reflected committee members' assessment of then current and pending problems about which information was needed if orderly adjustments were to be made by the dairy industry.

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| NCM-1: | Maintaining and Expanding the Market for Dairy Products. |
| NCM-12: | Adapting Marketing Systems and Practices to Changing Utilization and Technology. |
| NCM-26: | Changing Market Structure and Organization of the Midwest Dairy Industry. |

- NCM-38: Dairy Market Adjustment Problems in the North Central Region.
- NCM-101: Alternative Solutions to New Problems of Dairy Marketing Cooperatives.
- NC-145: Impact of Public Programs on Performance of the Dairy Industry.
- NC-176: Implications of Emerging Policy Issues and Market Developments for the North Central Dairy Industry.
- NC-198: Analyses of Selected Economic Factors Affecting the Long-run Viability of the Northern Dairy Industry.

These projects were selected in response to the committee members' assessment of the existing and anticipated changes in the dairy industry and the information needed by the industry to effect orderly change. The changes included: a) changes in dairy policy, b) changes in structure, conduct and performance of the industry, c) emergence of dairy cooperatives and their changing role in marketing milk, and d) international trade.

The merger-consolidation movement was probably the most significant and certainly the most interesting of any change which took place in the first 25 years of regional dairy marketing research. Much of the research involved getting into relatively new areas from a methodological standpoint. For example, very little work had been done using the structure-conduct-performance paradigm. The committee recognized this and there was some constructive questioning about entering this area.

The committee shored up its research capability in the structure-conduct-performance area by the use of specialists and seminars in the methodology involved. The largeness-fewness concentration phenomenon, economies of scale, the economic power involved as these related to and impacted upon the dairy industry, the consumer, and the public interest provided the research focus of the committee members at all times.

Changes and developments in the dairy industry are covered in much greater detail in a later section. Hopefully, comparing research projects with changes and adjustments occurring in the industry will allow one to determine whether the research was timely, relevant, useful to the dairy industry, and whether it, through the industry, positively impacted the general public.

Changes and Developments in the Dairy Industry

As already indicated, the purpose of the symposium was to evaluate the regional research approach and assess the possibility of expanding its use for research which is global in scope. We have examined almost half a century of North Central regional dairy marketing research. Our approach has been to examine the timeliness and relevance of the research with respect to problems and issues confronting the dairy industry. This section focuses on the changes and developments in the dairy industry during that period of time. Dynamic changes in production, processing, distribution, firm size, market structure, competition, pricing, regulation, administration, supply, and demand have characterized the dairy industry since World War II. Major developments within these categories which were dealt with by North Central regional dairy marketing research include:

- Complete shift from farm separated cream to whole milk sales by farmers, accompanied by greatly expanded production of nonfat dry milk.
- Virtual elimination of centralizers for butter production, accompanied by concentration of production in large multiproduct butter-nonfat dry milk plants.
- Substantial elimination of relatively small neighborhood cheese plants with limited whey disposal facilities, accompanied by concentration of cheese production in large cheese-whey powder production plants.
- Elimination of barriers by Health Department regulations, and other administrative techniques to the free flow of milk, accompanied by the development of large regional processing and distribution centers.
- Massive merger and consolidation activity, resulting in major reductions in numbers, and increases in size of dairy processing, manufacturing, and marketing firms, --- both cooperative and private. This, in turn, resulted in increased economies of scale, concentration, and market power for the survivors.
- Associated with the above changes, virtual elimination of small local dairy cooperatives, accompanied by massive shifts to large statewide, regional, interregional, and national dairy processing, manufacturing, and bargaining cooperatives. However, these developments contributed to vigorous challenges to the exemption of cooperatives from some provisions of antitrust legislation.
- A growing role for dairy cooperatives in tailoring supplies of bulk milk to fit processors and manufacturers needs. This substantially increased the "standby" surplus-carrying function of cooperatives as well as the costs associated with this function.

- Greatly increased mechanization and improved technology in dairy production, processing, manufacture, and marketing, thereby increasing the transportability, geographic distribution areas, and shelf life of fluid milk and other dairy products.
- Greatly improved refrigeration, transportation, and highway systems allowed a widening of marketing areas for fluid milk and dairy products.
- Shift from glass (predominantly quart) to single service paper and plastic containers (predominantly gallon or half-gallon) for fluid milk, single service containers for frozen dairy products, and prepackaging of cheese and butter.
- Shift of consumer purchases of dairy products away from processors, to regional or nation-wide franchised chain stores, supermarkets, food marts, convenience outlets, and fast food eateries. Private labeling and the market power of retailers vis-a-vis producers and processors, in turn, increased.
- Declining per capita consumption of fluid whole milk, butter, cream, and overall milk equivalent, accompanied by increased competition from substitute and imitation dairy products, soft drinks, and fruit juices. These changes in turn were encouraged by price competition, rising concern about calories and cholesterol, and changing lifestyles.
- As an offset to the above changes, a major increase occurred in variety and diversity of dairy products along with a substantially increased role for low-fat "lite" dairy products, and cheese, ---which more than doubled in per capita consumption.
- The development of new products (with or without dairy ingredients) which could be blended with dairy products, capitalized on changing consumer preferences, to compete with substitute and imitation dairy products.
- Improved and expanded standardization of milk processing, largely eliminating product differentiation at the consumer level.
- Acceptance of federal and state milk orders as the established system for pricing farm milk. Over 90% of the farm milk is priced by a federal or state order.
- Substantial geographic shifts in milk production with the Northwest, Far West, Southwest, and Central South generally gaining competitively relative to other areas of the country. This encouraged questions concerning the equitability and accuracy of federal and state milk order geographic pricing of farm milk.
- These concerns resulted in increased evaluation and analysis of various pricing provisions in federal and state milk orders including: Class I differentials,

Class II and Class III prices, the Minnesota - Wisconsin basic formula price, reconstituted milk pricing, compensatory payments, allocation pricing provisions, basing points; transportation allowances, stand-by pools, component pricing and the mergers of orders.

- Virtually constant chronic milk surpluses, resulting in government price supports setting, or at least heavily underpinning, the farm milk price. This, in turn, led to large expenditures for CCC dairy product purchases and almost constant evaluation of dairy policy programs by all segments of society. This situation ultimately resulted in substantial reductions in price support levels for farm milk, the imposition of dairy farmer assessments to help fund the price support program, and varying forms of supply management.
- Limited export markets for U.S. dairy products associated with export subsidization, tariffs, non-tariff barriers, duties, and various import restrictions by EEC and other dairy exporting countries. This resulted in almost continual evaluation and criticism of international trade policies, culminating in the GATT conference in an attempt to increase international trade by rewriting trade rules.

Uses of Research Results

The following are only a few examples of how North Central regional dairy marketing research "helped lead the way" since World War II as contrasted to reporting historically on economic changes and adjustments in the dairy industry.

- Findings from comprehensive regional research on market structure, economies of scale, concentration, and market power were used by dairy marketing specialists in assisting and advising newly enlarged regional, interregional, and national dairy cooperative organizations. Organizations were advised on structure, policies, and practices to use in dealing with the rapidly changing market situation.
- Regional research findings on the costs of market services associated with scheduling, transporting, and managing milk supplies were used by the newly enlarged cooperatives as they assumed the task of delivering the volume of milk needed by each processor at the time they needed it and tailoring supplies to the needs of the market. Cooperatives established a system of differential pricing of milk to processors depending on services provided. These and other regional studies aided dairy cooperatives in developing pricing and operational procedures to reflect increased market service, and standby surplus-carrying functions.

- Regional market structure research on food-chain integration into milk marketing provided valuable analyses on the economics of food-chain marketing and private labeling of milk, their operation of milk processing plants, their greatly increased market power, and the impacts of these developments on both producer cooperatives and private processors.
- Use of findings from regional dairy marketing research on the economies of milk distribution outside the markets in which it was packaged was evident in the rapid consolidation of dairy processing plants and the accompanying enlargement of distribution areas by both cooperative and proprietary milk processors.
- Regional research evaluating the implications of projected changes in demand for dairy products, including declining per capita consumption, aided the dairy industry in achieving its current expanded promotion, merchandizing, and research programs totaling over \$200 million annually.
- The dairy industry, legislators, and government agencies benefitted from regional research evaluating the dairy price support program and the federal milk marketing order program. Research on the impact of classified pricing, comparative advantage of milk production in various regions, and geographic shifts in milk production assisted the dairy industry, legislators, and government agencies in formulating and revising dairy legislation and regulations.
- Regional research on the economic impacts of trade regulations and restrictions provided information used by the dairy industry at legislative and International Trade Commission hearings and conferences. Results were also used in background work with legislative and regulatory agencies in formulating dairy trade policies and in GATT negotiations.

Some Conclusions

Committees conducting North Central regional dairy marketing research over almost half a century have been productive in focusing on timely and relevant dairy marketing problems and issues. Research findings have been instrumental in bringing about orderly marketing adjustments in the North Central dairy industry. These changes either directly or indirectly helped bring about similar changes nationwide. The Committees were not only successful in conducting relevant dairy marketing research but also in disseminating findings to the dairy industry which were used in making desirable and profitable adjustments.

This evaluation showed that regional research can be highly productive as well as far-sighted in problem selection and solution. While the analysis focused on an evaluation of the regional approach to research, there is evidence to suggest that much can be learned

from the approach as the profession incorporates a global dimension into the research agenda.