THIS CONFERENCE IS ORGANIZED FOR THE PURPOSE OF:

1. Creating better marketing conditions and, hence improvement in the conditions of milk producers in the various northeastern milksheds by encouraging and strengthening the various milk producers' cooperative organizations, and by better production and marketing methods with the cooperation of the various state and federal agencies, to the end that the industry may insure, as far as possible, a permanent and satisfactory milk market stability.

2. Assisting in the coordination of the activities between groups of producers within a market, between state and federal milk agencies, and between milksheds within the northeastern states.

3. Providing an agency of contact between the dairy industry in the northeast and national programs for the industry.

4. Suggesting and encouraging educational programs and research to assist in the solution to the problems facing the industry.

—FROM CONSTITUTION AND BYLAWS OF THE NORTHEASTERN DAIRY CONFERENCE
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Typed and edited by Walter C. Wasserman, Wendy Barrett and Jeanine Smith; some graphics created or re-created by Wendy Barrett; Cornell Cooperative Extension, 314 Warren Hall, Cornell University, Ithaca, New York, 14853-7801. Extra copies may be obtained from the editors.
1991
NORTHEASTERN DAIRY CONFERENCE
Desmond Americana, Albany
March 25 & 26, 1991

Executive Committee Meeting: March 25, 1991
Chaired by: Norman Harvey, President

1. Treasurer's report read and accepted.
3. Voted to recommend acceptance of Dairymen, Inc.'s invitation to host the 1991 Conference in Baltimore, Maryland.
4. Voted to recommend publication of this year's Conference Proceedings.
5. Discussion on:
   A) Expanding industry participation through more extensive publicity.
7. Tentative Planning meeting is scheduled for Thursday, November 7, 1991 in Syracuse or Albany.

Business Meeting: March 25, 1991
Chaired by: Norman Harvey, President

1. Secretary's report accepted as printed in 1990 Proceedings.
2. Treasurer's report showing balance of $19,303.94, as of March 1991, was accepted.
3. Officers nominated and elected as follows:

   President Myron Wilhide, Dairymen, Inc.
   Vice President Lew Gardner, Eastern Milk Producers
   Secretary Walter Wasserman, Cornell
   Treasurer Paul Hand, Atlantic Dairy

Executive Committee:

   Norman Harvey, Agri-Mark 1994
   Robert McSparran, Atlantic 1994
   James Putnam II, Farm Credit 1994
   Clyde Rutherford, Dairylea 1992
   Robert Vaughn, MD-VA 1992
   Darwin Braund, Agway 1993
   Lloyd Patterson, Cabot 1993
   William Zuber, Upstate 1993

Program Committee for 1992:

   Officers
   Executive Committee
   Host Representatives

4. Accepted Dairymen, Inc.'s invitation for 1992 Conference.
5. Voted to continue to publish Proceedings and to make available to Conference attendees.
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1 No annual meeting. Constitution and Bylaws Committee appointed.
2 No annual meeting. Conference met jointly with Northeastern State Farm Bureau Federations.
3 No annual meeting. Only committee meetings.
PREFACE

In the mid-1980s, nearly 100 dedicated professionals, constituting three task forces and representing an array of interested and knowledgeable people from the public and private sectors, developed informed judgments regarding the future of the northeastern food and agriculture system. That unique, insightful, and valuable project was titled: TOWARD 2005.

A major study component of this future-oriented endeavor was the Northeast Dairy Industry. The experts participating in the TOWARD 2005 project, laced with sobering words, their assessment of the gut issues facing the Industry. These dedicated individuals not only addressed concerns, made projections, and framed issues, but they took the next and difficult step—they articulated an action agenda.

The Northeast Dairy Industry Leadership Group was formed to focus on the priority recommendations and facilitate action on those designated of highest priority and doable.

This report has been prepared to clearly chronicle the background information, describe activities, articulate high priority concerns, and provide an assessment of action progress. Importantly, the Leadership Group is hopeful the report will help stimulate Industry leaders to develop a greater sense of urgency regarding the profound need to accelerate the movement of the Northeast Dairy Industry toward consolidation and unification. Each day of inaction will continue to sap the potential inherent in a vital, productive, and thoroughly cooperative Dairy Industry Enhancement Movement. Such an endeavor will require the wholehearted support of a huge majority of the commercial dairy farmers in the Region.

The Leadership Group is deeply appreciative of the actual testimony given by the many individuals during our deliberations. I am particularly grateful for the participation of each member of the Leadership Group. Each person diligently and constructively addressed every issue.

I urge everyone involved with our Dairy Industry to study this report with painstaking care. Your constructive criticism will be appreciated, as will your support.

Norman P. Harvey
Chairman
Northeast Dairy Industry Leadership Group

-1-
ACKNOWLEDGMENTS

The Northeast Dairy Industry Leadership Group wishes to acknowledge the assistance of the many persons who responded to requests for insights, counsel, and information pertinent to their expertise and experience. Those who shared their time and thoughts are too numerous to list. As they read this report, may they sense the gratitude expressed here.

Particular appreciation is expressed to President and General Manager, William A. Hiller, and his several associates for serving as gracious hosts. The majority of the Group meetings were held at the Agway headquarters in Dewitt, New York.

Dr. Lamartine Hood, Dean, College of Agriculture at the Pennsylvania State University assisted in numerous ways to facilitate the June 21-22, 1989 meeting at University Park. That fine hospitality is much appreciated.

The Northeast Dairy Industry Leadership Group wishes to recognize the useful vision demonstrated by the Northeast Regional Council in the sponsorship, planning, and execution of the future-oriented project, TOWARD 2005. Its perceptive and clearly articulated Action Agenda for the Northeast Dairy Industry did then, and does now, serve as a meaningful source of objectives and goals. The Leadership Group finds its work substantially facilitated by the TOWARD 2005 endeavor and outcomes.

Gratitude is expressed to Dr. Dale W. Zinn, Director-at-Large, Northeast Agricultural Experiment Station Directors Association who, though not an official member of the Leadership Group, provided a solid assist in facilitating with meetings, serves as Secretary, and provides liaison with the Northeast Regional Council.

Recognition and appreciation is extended to two gracious and capable ladies at Agway Inc., namely; Lois Vitale and Arleen Gallup. They provided special assistance in taking this report from manuscript through its several revisions to final form. Support for their professional participation was made possible through the interest and cooperation of Dr. Darwin G. Braund, Director of Research & Applied Technology at Agway.

Finally, appreciation is expressed to Dr. Gilbert H. Porter, Executive Vice President of the Northeast Dairy Practices Council, for his willingness to assist with this report.

GENESIS

The national Joint Council on Food and Agricultural Sciences is charged by Congress to foster coordination and planning throughout the food and agricultural science system. The Northeast Regional Council (NERC) was organized in 1980 as a component of the Joint Council and considered its charge similar to that of the national body. NERC is an organization of representatives from private enterprise, government, and the education and science system.
A primary goal established at the organizational meeting of the Northeast Regional Council was to "analyze the trends and future potential of food and agriculture in the region and recommend courses of action that will make optimal use of the resources of the region to meet the food and agriculture needs of the people." It soon became obvious that attaining such a goal would be especially difficult without the benefit of a broad-based, comprehensive regional study. Clearly, there was a need to conduct a future-oriented project that would identify driving forces, major emerging developments, and consequential trends from which sets of issues and action agendas could be articulated.

A steering committee was appointed by NERC in 1982 to frame such an endeavor. TOWARD2005 was conceived, a project statement developed, funding was sought, and the project was launched in October of 1984. During the next two years, nearly 100 people constituting three task forces, and representing an array of interested and knowledgeable people from the public and private sectors, developed informed judgments regarding the future of northeastern production agriculture, food processing, forestry, and the land grant science and education system. The task force members looked into the future, addressed concerns, made projections, framed issues and took the next, and difficult step—they articulated action agendas.

Looking to the Future

As one studies the thought-provoking information presented in the TOWARD 2005 reports, the following vital messages emerge regarding the future Northeast Food System:

- A major restructuring at the farm level, now under way, will accelerate and necessitate substantive adjustments by all components of the agricultural sector.

- Emerging technologies will become an exponential driving force powering change both in production agriculture and in food processing.

- The need has never been greater for the land grant science and education system to be a prime agent of change and economic development, and provide key leadership in the molding of outstanding human resources.

- Effective regional marketing systems must be developed for primary food categories such as milk and dairy products, apples, and potatoes.

- Producers and processors must give increased attention to market research and respond early and with diligence to changes in consumer preferences.

- Marked productive efficiency gains must be attained in production agriculture and in food processing.

- A regional food system regulatory structure must be developed and fostered.
The Future Competitive Position of the Northeast Food System

Sobering words! The projections in the TOWARD 2005 project imply that Northeast agriculture will experience a falling market for many of its products at the regional and virtually all of its products at the national level. Ten regional food commodities (out of 24 considered) are expected to lose market share even though it is anticipated that each commodity will experience growth in regional consumption. The report stated: "If no steps (actions) are taken to change the situation, the general prospect is for a relative decline in Northeast agriculture's competitive position in comparison to agriculture in the rest of the United States."

The Northeast Dairy Industry

What did the experts participating in the TOWARD 2005 endeavor have to say about issues facing the Northeast Dairy Industry? Their assessment of key concerns is capsulated below:

• The milk marketing system is fragmented and has high assembly, operating, and sales costs. Excess capacity exists.

• Too many dairy cooperatives are heavily leveraged with low producer equity. Often directors and management have excellent production experience, but are not strong in financial or marketing expertise.

• Local, poorly advertised brands cannot successfully compete with carefully selected, high quality brands that are advertised regionally and nationally.

• Maintenance and, in some cases, expansion of high-caliber teaching, research, and extension are essential to Northeast dairy industry leadership.

• Production per cow and per worker in the Northeast are lagging the nation as a whole.

• The Northeast needs to take the lead in improving milk quality. Regionally uniform health regulations need to be established for the movement of milk and cattle across state lines.

The study participants went on to articulate 15 action recommendations. To help validate those action items, spotlight the priority recommendations, and facilitate action on those designated of highest priority and doable, the Northeast Regional Council co-sponsored, with the Northeast Center for Rural Development, a dairy forum in the spring of 1988. The priority action agenda which issued from that effort follows:

• Improve Competitive Position of Northeast Dairy Farmers—Production per cow and per worker in the Northeast are lagging the nation as a whole. Improve the adoption rate of current and new technology, and superior production and farm business management
practices in order to increase the average production and output per worker to equal or exceed inter-regional competitive standards.

- Market Enhancement—Use current and new technologies to improve present and develop new dairy products. Improve milk processing and dairy product manufacturing efficiency. Encourage joint efforts between private sector and university centers of expertise. Generate funds to strengthen research and development work in these needed areas at appropriate Northeast land grant colleges.

- Improve Milk Handling Efficiency—Change the current system of milk collection and delivery. Through cooperative agreements, joint ventures and new technologies, reduce the number of vehicles and miles traveled for milk assembly and over-the-road movement. New technologies are emerging which will facilitate reducing the amount of water in milk as it is transported from farm to plant and plant to plant.

- Milk Quality Improvement—Milk quality throughout the continuum from cow to consumer must be enhanced. The average somatic cell count can be reduced by lowering the maximum permissible level, and by establishing economic incentives to dairy farmers. Redesign, test, and retest plant operations to remove opportunities for post-pasteurization contamination. Improve the plant-to-consumer fluid milk and dairy product delivery, storage and display system.

- Regional Regulations Uniformity—Foster uniform sanitary regulations and inspections for the production and processing of milk. Adopt a single standard of identity for each dairy product. Standardize animal health regulations to permit free flow of animals throughout the Region.

- Land Grant College Specialization—There is a profound need to maintain strong research, teaching and extension programs for discovering and testing cost effective technology, training future dairy industry leaders, producers, processors, and delivering efficient systems for crop and milk production. The majority of land grant colleges will not be able to provide high quality comprehensive teaching, research and extension programs in all aspects of agriculture. Create a system in which each State College of Agriculture specializes in one or more of its strongest programs. Specialization would facilitate more efficient use of shrinking resources and help assure superiority of individual programs such as dairy production and food science programs.

Subsequent to the Dairy Forum, a blue-ribbon committee of dairy industry leaders gathered on June 1, 1988 to structure and energize a plan to move the action agenda forward. This Forum Evaluation Committee agreed unanimously that a relatively small, diversified group of dairy industry leaders, chaired by an active dairy farmer, represented the best hope to facilitate action.

This recommendation was immediately pursued. On August 23, 1988 Mr. Norman Harvey's a dairy farmer from Florence, Vermont, and Chairman of the Board of the dairy
cooperative, Agri-Mark, agreed to form and chair what came to be known as the Northeast Dairy Industry Leadership Group.

**ACTIVITY**

In the fall of 1988, Mr. Harvey sought a diversified panel of dairy industry leaders. The following individuals agreed to serve:

- Mr. J. Roger Barber, Member Farm Credit Board, Springfield Banks
- Mr. Earl Fink, Executive Vice President, Pennsylvania Association of Milk Dealers
- Dr. Paul E. Hand, General Manager, Atlantic Dairy Cooperative, Inc.
- Mr. William A. Hiller, President and General Manager, Agway Inc.
- Dr. Lamartine Hood, Dean, College of Agriculture, Pennsylvania State University
- Dr. Dale W. Zinn*, Director-at-Large, Northeast Agricultural Experiment Station Directors Association

*Not an official member of the Group, but serves as Secretary and liaison with the Northeast Regional Council.

**The Need For A Strong Regional Dairy Industry**

Dairying is the agricultural mainstay of most states in the Northeast. Dairy marketings rank first as a source of farm income in New York, Pennsylvania, Maine, New Hampshire, and Vermont. They rank second in Connecticut and West Virginia. They are third in Massachusetts, Rhode Island, and Maryland. Dairy marketings have slipped to fifth in Delaware and sixth in New Jersey.

Northeast dairy processors enjoy an advantageous location relative to the immense consumer population of the Region. This factor is particularly significant for fluid milk processors/marketers. Population in the Region continues to grow and per capita consumption of milk and dairy products on a milk equivalent basis also continues to strengthen. Commercial use of dairy products during the past decade has been substantially stronger than expected by most industry economists.

On the other hand, there are some disturbing issues and trends. Several are placed in sharp focus in the initial section of this report (pages 1-2).

In order to remain competitive with other dairy regions of the country, and take advantage of the powerful consumer demand right here in the Northeast, stronger regional cooperative initiatives must be progressed now.

One set of statistics helps underscore this need for united action. In viewing these data, keep in mind that nearly one-quarter of the population of the United States resides in the Northeast. To the point of competitiveness, and taking advantage of meeting the demand
for milk, especially here in the Northeast region, the data which follow provide real food for thought:

Northeast Share of Total Milk Production: 1983-1990

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Source: USDA National Agricultural Statistical Service, February 1991

As the Sunbelt and West increase their share of total U.S. milk production, the Northeast region has in recent years slipped below the 20% level. In 1989, the N.E. regional share moved through 19 to 18.9%. The downward trend continued in 1990! If Northeast dairymen do not meet northeastern consumer demand, clearly others are preparing themselves well to take advantage of this coveted market. The recent Federal Market Order hearings dramatically underscore the length other regional producers will go to weaken the Northeast dairy industry. The Region has demonstrated commendable cohesiveness and cooperation in responding to this clear external challenge. It will bode well for the future if this display of regional cooperation can spill over to help ameliorate problems within the Northeast.

Leadership Group Meetings

The Group (NEDILG) gathered on December 13, 1988 in Syracuse for its organizational meeting. Subsequent meetings were held as follows:

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At the initial meeting held in December of 1988, a mission statement was framed, and the six action priorities which were outcomes of the March 1, 1988 Dairy Forum were discussed as Northeast Dairy Industry Goals and Objectives. These were modified slightly to clarify meaning and content. A seventh item was added as an action-motivation goal.

The mission statement and action priorities are presented below:
Mission Statement

The mission of the Northeast Dairy Industry Leadership Group shall be to provide the agenda and motivation required to mobilize regional resources in the development of a Northeast Dairy Enhancement Program that will posture a more competitive dairy industry.

Northeast Dairy Industry Goals & Objectives

1. Improve Competitive Position of Northeast Dairy Farmers—Production per cow and per worker in the Northeast are lagging the nation as a whole. Improve the adoption rate of current and new technology, and superior production and farm business management practices in order to increase the average production and output per worker to equal or exceed inter-regional competitive standards. Encourage structural changes which will improve the income and profitability for Northeast dairy farmers.


3. Improve Milk Handling Efficiency—Change the current system of milk collection and delivery. Through cooperative agreements, joint ventures and new technologies, reduce the number of vehicles and miles traveled for milk assembly and over-the-road movement. New technologies are emerging which will facilitate reducing the amount of water in milk to reduce volume and cost as it is transported from farm-to-plant and plant-to-plant.

4. Milk Quality Improvement—Milk quality throughout the continuum from cow to consumer must be enhanced. The average somatic cell count can be reduced by lowering the maximum permissible level, and by establishing economic incentives to dairy farmers. Redesign, test, and retest plant operations to remove opportunities for post-pasteurization contamination. Improve the plant-to-consumer fluid milk and dairy product delivery, storage, and display system.

5. Regional Regulations Uniformity—Foster uniform sanitary regulations and inspections for the production and processing of milk. Adopt a single standard of identify for each dairy product. Standardize animal health regulations to permit free flow of animals and products throughout the Region.

6. Land Grant College Specialization—There is a profound need to maintain strong research, teaching and extension programs for discovering and testing cost effective
technology, training future dairy industry leaders, producers, processors, and delivering efficient systems for crop and milk production, processing and distribution. Create a coordinated system in which each state college of agriculture specializes in one or more of its strongest programs. Specialization would facilitate more efficient use of shrinking resources and help assure superiority of individual programs such as dairy production and food science programs. Generate funds to strengthen research and development work in these need areas at appropriate Northeast land grant colleges. An urgent need exists to consolidate and strengthen Extension servicing on-farm needs of dairymen.

7. Agenda and Motivation—In cooperation with land grant and non-land grant universities, cooperatives, farm organizations, and private industry, the NEDILG will develop a realistic, coordinated strategic plan that will provide the motivation and implementation necessary to posture a more competitive regional dairy industry.

In addition to discussing matters pertinent to the NEDILG mission, each meeting agenda was structured to bring in dairy industry experts to share thoughts and facilitate dialogue on a spectrum of important issues.

The following is a summary of pertinent matters considered by the Group at the six meetings held from December 13, 1988 through November 7, 1989:

*Milk Dealer/Processor/Distribution Issues*

1. Need for uniform dairy product standards throughout the Region.

2. Need for consolidation of generic promotion agencies to avoid inefficient use of funds and effort.

3. Need for more uniform raw milk prices throughout the Region.

4. Need for increased training and understanding regarding improved milk and milk product quality.

*Dairy Related Activities at Northeast Land Grant Universities*

1. Cornell and Penn State have the depth of resources to carry on effective comprehensive programs in dairy science in all areas of research, extension, and resident education. ***** order to more effectively conserve dwindling financial resources, other states should look to Cornell and Penn State as key providers in many aspects of dairy science across research, extension, and resident education.

2. Need for strengthening the input from the private sector regarding industry needs at the farm level and in milk and dairy product processing. Both the public and
private sectors must work more closely with regard to product development and marketing.

3. Need for an awareness program to impress on all in the dairy industry the potential impact of economic, social, political and environmental forces.

4. Need for a summit meeting of all dairy cooperative leaders to discuss high priority issues confronting the industry. Cornell and Penn State could facilitate discussions in search of solutions.

Political Scene and Implications for Dairy Industry

1. Need for unified Northeast position on dairy policy. This need is critical and profound. The current splintered, diverse positions on dairy policy render the Northeast almost powerless in the national dairy policy decision making process.

2. Dairy industry must be prepared for free market conditions.

3. Congress is in a mood to continue to lessen funding for agricultural programs.

Northeast Regulatory Situation

1. Some obstacles remain in the movement of milk and milk products among states.

2. Uniform standards of identity of dairy products must be achieved and maintained.

3. Regulatory agencies, because of a lack of resources, are finding it increasingly difficult to enforce standards.

4. A concentrated, coordinated effort by state and federal agencies must be realized to satisfy the standards needs of customers, manufacturers, and farmers.

The Outlook for the Northeast Dairy Farmer in the 1990s

1. There will continue to be a highly competitive and volatile dairy business climate.

2. Adoption of current and emerging technologies will be critical to individual farms.

3. Average size of dairy farms will continue to increase.

4. Enhanced regional marketing will be critical to individual dairy operations.

5. Farm labor will be a substantive limiting factor for Northeast dairying.

6. Environmental issues will play a key role in the future dairy industry.

-10-
The Outlook for Dairy Farm Finance in the 1990s

1. There are widening disparities among individual farms.
2. There is a recognized complexity of large dairy farm businesses.
3. There is a fragile dairy marketing environment.
4. There is increased volatility in the dairy business climate.
5. Environmental risks will increase.
6. There is a need for improved financial management.
7. A need exists for more innovative financing.

What Should be the Future Direction of Northeast Dairy Cooperatives?

1. Cooperatives must exert more influence in pricing policies.
2. There must be more joint ventures between and among dairy cooperatives.
3. Cooperatives must improve milk handling ability and reduce balancing costs.
4. Must identify real reasons why independent dairymen do not join cooperatives.
5. There must be a common Northeast strategy for all dairy cooperatives.
6. Need for a summit meeting of cooperative leadership.

Northeast Milk Production—Trends and Projections

1. Number of dairy farms and land in farms will continue to decline.
2. Net farm income will show modest gains.
3. Number of milk cows will decline and production per cow will increase, but at a slower rate than the U.S. average.
4. Population will increase in the Northeast, but at a much slower rate than the U.S.

What Should Be Done

The Northeast Dairy Industry Leadership Group recommends:

1. Accelerated improvement in production efficiency on Northeast dairy farms to maintain markets and provide an adequate return on investment for dairy farmers.
2. A comprehensive effort to improve prices to producers, recognizing that such price improvement must be tempered by the possibility of losing markets to milk from other regions if the pricing structure becomes non-competitive.

3. Cooperation of administrators in establishing compatible regional interstate regulations for the inspection, handling, processing, transportation, and marketing of milk and dairy products.

4. Accelerated efforts to develop a more efficient processing, marketing, and distribution system on a regional basis. It is desirable that this take place with adequate producer investment and control.

5. Study further the possibility of reducing the current number of marketing cooperatives in the Northeast, giving special consideration to steps that would strengthen markets within the entire Region.

**Plan of Action**

The Northeast Dairy Industry Leadership Group recommends the following plan of action with related assignment of leadership responsibility:

1. Aim to improve production efficiency throughout the Region by other northeastern states adopting a Pro-Dairy type program similar to that now moving forward in New York.
   - Leadership to be provided by the land grant colleges and related state extension services.

2. Initiate a comprehensive effort to improve returns to producers by calling a “summit” meeting in early 1990 of producer organization to discuss mutual regional interests, emphasizing the need for unity on essential issues.
   - Leadership to be given by the appropriate industry leaders and academic administrators.

3. Standardize Northeast interstate regulations to bring harmony to regional marketing development.
   - Leadership to be provided by the Northeast Association of State Departments of Agriculture (NEASDA).

4. Following the meetings referred to above, and with the outcome at hand, further actions can be planned focused on improving the long term viability and profitability of the Northeast Dairy Industry.
It is the intent of the Northeast Dairy Industry Leadership Group to coordinate the Plan of Action as outlined above through the agencies and institutions as specified.

**Action Plan Progress**

Group Chairman Harvey called a summit meeting of the general managers and chief executive officers of nine northeastern dairy cooperatives for February 5-6, 1990, in Albany, New York. This meeting was well attended. Useful input was provided by outside industry leaders and the discussions were facilitated by personnel from Cornell and Penn State.

Discussions during the Conference can be partitioned into six areas:

1. There is an identified need for cooperatives to better coordinate efforts in the Northeast.
2. Now is a good time for improved coordination—the time is right.
3. Key issues were identified which must be addressed.
4. Existing approaches to enhancing prices can be improved on.
5. Cooperatives need to develop better ways of adding the highest value to Class II milk through making use of existing plants.
6. There is a need to further explore what organizational options would best address the identified issues.

A working group consisting of the CEO's of all interested cooperatives as well as representatives from land grant universities is currently moving this process forward under the leadership of Dr. Paul Hand, General Manager, Atlantic Dairy Cooperative, Inc. This executive subcommittee of the Northeast Dairy Industry Leadership Group held meetings on April 2, 1990 and June 1, 1990. Though substantive progress is difficult to assess at this time, all concerned continue hopeful this initiative will yield some desirable change.

There is evidence of a growing sense of urgency regarding the need throughout the Northeast to improve milk production efficiency. It was encouraging to note a thoroughly thought-provoking article in the June 1990 Agway Cooperator titled: *Can You Expect Improved Returns If Your Cows Move To Higher Levels Of Production?* Those who earnestly seek an answer to that question will find excellent documentation supporting the conclusion that the odds do favor improved profitability as productivity rises. Extension programs and private industry initiatives patterned on the Cornell Pro-Dairy Program are focused on improving both productivity and profitability. Efforts are underway to extend the Pro-Dairy concept beyond the borders of New York State. Pennsylvania is developing a program designed to build on the New York endeavor. This is welcome news.
A modest effort is moving forward to standardize Northeast interstate milk and milk product regulations. Members of the Leadership Group continue contact with pertinent agencies and institutions. Progress is now evident.

**FUTURE**

The Northeast agriculture and food sectors will be tested thoroughly as they move through the 1990s and commence the 21st century. Since the 1950s, inter-regional and international shifts in production, transportation system changes, and changes in materials handling and marketing systems/structure have brought numerous and profound production and processing adjustments. Intra-regionally, changes in marketing and packaging strategies, increasing competition from non-agricultural uses of land, competition for available labor, real estate tax burdens, and shifts in consumer preferences have caused much adaptation by farmers and food processors/marketers. Many operators who could not or would not adjust to the accelerating change are no longer in business. There has been a precipitous decline in the number of farmers and food processors during the past three decades. Yet, many remain, and the majority have economically viable businesses.

Today, a much higher proportion of the food and fiber products consumed in the Northeast is produced elsewhere than was true in the 1950s. Nonetheless, there are numerous advantages indigenous to the Region, that, if properly leveraged, provide substantive opportunity to help assure a desirable future for northeastern food and agriculture. One indisputable plus factor is the dense, relatively affluent population in the Region. It is a coveted market area!

A second sharp advantage is the deficit production of most food items. For example, during 1983-84, average annual milk equivalent consumption in the Northeast totaled approximately 37 billion pounds. During those same years, average annual milk output by the northeastern dairy herd amounted to just over 28 billion pounds. This represented an "opportunity" short-fall relative to regional demand of nearly 9 billion pounds of milk! When the 1990 figures are in, that "opportunity differential" will probably exceed 10 billion pounds of milk. And, importantly, this is a prime fluid milk market. That makes it a substantial advantage market for Northeast producers. This advantage applies whether the milk is marketed through dairy cooperatives or independent handlers.

**Highlights of Expected Northeast Dairy Industry Change**

The experts who participated in the TOWARD 2005 project looked into the future and projected the following change:

- Substantial increase in per capita consumption of dairy products.
- Consolidation of milk processing industry.
• An accelerated increase in production per cow.

• Significant increase in total annual milk production.

• Hefty reduction in number of producers.

• Continued significant decline in cow numbers.

Those involved in TOWARD 2005 went on to articulate substantive dairy industry issues. Further, they framed a clear action agenda to address the issues. These issues and the primary action items are restated in this report on pages 3-5.

The Northeast Dairy Industry Leadership Group has developed its own Action Plan directed to three high priority issues. That Plan is outlined on pages 10.

As the Leadership Group views this array of issues and action plans, it is necessary to conclude, here at the top of the 1990s, that progress is at best modest in dealing with the key industry issues and moving action plans forward. It can be stated with certainty that during the 1985-1990 period only minimal progress has been realized in posturing the Regional Dairy Industry in a more competitive position. In fact, perhaps the most important happening is that some ground may have been lost during the past five years regarding the Regional Competitiveness compared with other significant dairy regions in the United States!

The Next Five Years

The core Northeast Dairy Industry change is proceeding just about as projected by the experts who participated in the TOWARD 2005 endeavor. The industry issues they framed were on target, and most of them are just as relevant today as they were when identified in 1985-86. The action agenda articulated by those same experts also was in proper focus, and continues in sharp focus at this writing - some five years later.

It is distressingly clear to the Northeast Dairy Industry Leadership Group that the one critical objective which has not been adequately fulfilled is—substantive progress with the Action Agenda! The things that need doing are either not being done or are moving forward with no apparent sense of urgency! The Leadership Group feels strongly that as the Northeast Dairy Industry moves through the first five years of the 1990s, the challenges will deepen, the need for appropriate actions will sharply intensify, and, therefore, Industry leadership must place the very highest priority on Regional cooperative initiatives directed to getting done those things that most agree need doing. This urgent need for action is worthy of a grand, united, fiercely committed, cooperative endeavor directed to demonstrative improvement of the Northeast Dairy Industry competitive position.

Those areas that continue to warrant diligent attention are:
• Improve competitive position of Northeast dairy farmers
• Market enhancement
• Improve milk handling efficiency
• Milk quality improvement
• Regional regulations uniformity
• Rectify environmental problems
• Deal effectively with butterfat issues
• Development of a widely held understanding of the need and worth of a strong Northeast Dairy Industry
• Land Grant College Extension delivery system
• Food safety
• Research & development directed to new products

The Northeast Dairy Industry Leadership Group remains firmly committed to its mission and will continue to do all feasible to facilitate meaningful progress with the action needs summarized throughout this report.

It may require a touch of rhetorical license, but the challenge now before the Northeast Dairy Industry has some elements not dissimilar from what faced the American colonists just prior to the Revolutionary War. The leaders of the 13 colonies recognized and understood what had to be done. To do so required subjugation of short-term, parochial concerns for the common good. It required an uncommon demonstration of understanding and statesmanship. Above all, what needed to be accomplished required open minds, a vision of an entity stronger and more productive than its component parts, and, of critical importance, they sensed keenly the need for urgency—getting the task accomplished. The Northeast Dairy Industry is at just such a juncture.

A “desired future” will not happen if we continue to pursue random, parochial, short term goals. Such a future must be dreamed, plans developed, and assiduous attention given to the framing of the process of execution. Then, that desired future will be attained only through earnest commitment, a long range view, and finally, cooperation among those in our “universe”.

A truly desirable future for the Northeast Dairy Industry will come through a strengthening of the resolve and cooperative action of those in leadership positions by adopting policies and carrying out plans which move toward demonstrable regional Industry progress.

We will rise to this opportunity and sculpt a desirable future for all who continue on and all who follow.
The dairy industry is seeing its sales hit hard by a recession, just as the exciting prices of 1989-90 fade into memory. Early 1991 surpluses are large, and farm milk prices are the lowest since 1978. However, ongoing adjustments may make year-end market conditions significantly different from current ones.

**General Economy**

The very long period of economic growth ended last fall, as the economy slid into recession. Real GNP fell 2 percent during the last quarter of 1990 and probably lost additional ground this quarter. Consumption, investment, and disposable income all fell, while the unemployment rate edged upward.

The war in the Persian Gulf may turn out to have had relatively little economic impact. Most of the supplies expended had been accumulated gradually in earlier years. Government procurement was stepped up for relatively few items. Even the surge in oil prices proved to be fairly short-lived.

The recession was anticipated widely, avoiding some of the problems (such as wide inventory swings) that can deepen and lengthen recessions. The economy is expected to resume growing this year, possibly as early as the second quarter. The recovery is likely to be moderate. As the economy picks up, interest rates probably will reverse course and rise slowly, although recent easing of the money supply will mitigate the increases.

**Commercial Use**

The sagging economy appeared to weaken dairy sales very quickly. October-December sales were lackluster for all major dairy products except American cheese. Indications are that winter dairy sales also were weak. However, economic growth and lower retail dairy prices are expected to boost commercial use later in 1991.

Commercial use of all dairy products (milkfat basis) is expected to rise 1-2 percent in 1991. Although this rise would be large for a recession year, it would be much less than 1990’s 3-percent increase to 139 billion pounds. Commercial use of skim solids will be weaker; a decline in disappearance of nonfat dry milk is projected to pull down the total sales of skim solids.

**Milk Production**

Milk producers are trying to cope with the shock of last year’s price crash. After much higher returns during late 1989 and most of 1990, milk-feed price relationships in 1991 will be the least favorable in more than a decade. Along with high hay prices in the West, lower milk...
prices will encourage exit of producers who had held on because of high prices and will force other producers to re-examine expansion and entry plans.

On the other hand, most producers are relatively well positioned to withstand lower prices. Dairy farm costs have been reduced substantially since the mid eighties, and farmers used these savings largely to pay off debt. As a group, milk producers probably entered 1991 with relatively low debt and cost structures and relatively large liquid assets.

After a fairly steady moderate expansion in 1990, growth in milk output probably is slowing. Milk cow numbers went from slightly above a year earlier last fall to a decline of one half percent by February. Although the month-to-month pace probably will slacken, decreases in cow numbers are expected to persist during most of this year. Growth in milk per cow stayed strong in early 1991. However, low milk-feed prices ratios probably will continue to forestall growth in concentrate feeding and gains in output per cow will slip. Total 1991 production is projected to rise 1-2 percent.

Government Purchases

Since last autumn, Government purchases of all 3 products have been large. Already in 1991, removals have reached almost 5 billion pounds on a fat basis. Removals of skim solids totaled more than 2 billion pounds milk equivalent, even though this is the light season for skim solids purchases. Purchases probably will remain large during the April-June quarter. However, removals are expected to drop off during the second half, as production increases slow and sales recover. Milkfat removals are expected to be similar to the 1990 total. However, the skim-solids surplus will be sharply higher than last year and may be almost as large as the fat surplus.

Prices

With winter wholesale prices of manufactured products resting on support purchase prices, farm milk prices were just slightly above support levels and about $3 per cwt below a year ago. Prices probably will be stagnant until at least late spring. Tightening markets are expected to raise prices during the second half of the year—but not dramatically. The fourth-quarter average Minnesota-Wisconsin price may be $.75-1.00 above the flush season.

The 1991 average price received by farmers is projected to fall 15-20 percent from the near-record of 1990. The drop will be the largest of the post-World War II era.

Retail prices of dairy products peaked in October and had dropped 3 percent by February. Decreases in retail fluid milk prices have led the category. February fluid milk prices were 4 percent below a year ago, compared with a 1-percent decline for all products. Despite these declines in retail prices, the farm-retail price spread has widened sharply. Further retail price declines are expected to erode spreads as 1991 progresses. For all of the year, retail prices probably will decrease 2-4 percent, compared with an 11-percent increase in 1990.

The dairy industry faces major adjustments in 1991. Farmers will have to cope with prices that reflect supply-demand fundamentals for the first time in three years. However, the industry is basically healthy and probably will be fully able to handle the challenges ahead.
I asked Norm Harvey and Walt Wasserman if they would please screen people at the door for tomatoes and other dangerous projectiles before I was introduced. They refused to do that. It's a bit dangerous these days to venture outside of California, particularly to come to other major dairy areas. But, inasmuch as I spent a few years in New York in the early 1980's, I am hopeful that you might be a little kinder than you would otherwise be.

I want to start off by showing you what happened to the California dairy industry in 1990 and then we'll speculate together about 1991. And, don't worry, along the way I'll talk about the California water situation. I have to admit that it was nice to come here and take a shower and not worry about how much water I was using.

**1990 Production/Sales of Fluid Milk**

1990 market milk (or Grade A) production in California was about 20.5 billion pounds, which was up 7.9% over 1989 (See Table 1). Manufacturing milk was a tiny proportion of the total; overall production was just under 21 billion pounds in 1990. In 1990, about 44 percent of our fluid milk consumption

<table>
<thead>
<tr>
<th>CLASS 1 USAGE</th>
<th>33.8%</th>
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<tbody>
<tr>
<td><strong>PRODUCTION</strong></td>
<td></td>
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<tr>
<td>MKT</td>
<td>20.5</td>
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<tr>
<td>MFG</td>
<td>0.4</td>
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<tr>
<td>TOTAL</td>
<td>20.9</td>
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<tr>
<td><strong>WHOLE</strong></td>
<td>44.5%</td>
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<tr>
<td><strong>LOWFAT(2/10)</strong></td>
<td>38.2%</td>
</tr>
<tr>
<td><strong>EXTRA LIGHT(1/11)</strong></td>
<td>6.6%</td>
</tr>
<tr>
<td><strong>NONFAT</strong></td>
<td>10.7%</td>
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*The standard for Extra Light Milk was effective January 1, 1990. While there are some in California who envision moving away from naming milks based on explicit reference to their fat content and instead calling them "Milk," "Light Milk" (2/10), "Extra Light Milk" (1/11), and "Ultra Light Milk" (nonfat), to date only the Extra Light Milk nomenclature has been adopted.*
was whole milk; 38 percent was lowfat (2 percent fat - 10 percent solids-not-fat); almost 7 percent was Extra Light Milk (1 percent fat - 11 percent solids-not-fat); and nonfat was just under 11 percent. We are a large Class 1 state, but as a percentage of production we are a relatively small Class 1 state; just a third of our milk in 1990 was used for fluid purposes.

1990 Manufactured Products

In 1990, total cheese production was just over 700 million pounds, which was up 15.5 percent over the prior year. You can see in Table 2 how the production breaks down. Many people may think that California is a cheddar cheese state, but in fact, mozzarella cheese is by far the major variety produced. Butter production at 279 million pounds was up a little over 10 percent in 1990. Powder at 322 million pounds was up about 14 percent in 1990.

Farm Level Milk Prices—1990

Let me talk to you about where prices were in 1990 (Graph 1). The top line is the New York-New Jersey Class I price, by months, for 1990. The line with the asterisk is the Upper MidWest Order Class I price—the order that many Californians relate to most closely in the federal order system. The other line is the Southern California Class 1 price. The Southern California Class 1 and the Upper Midwest Class I price for 1990 were quite similar; the Upper Midwest averaged $14.17 while California averaged $14.03. Both were about $2.00 per hundredweight (cwt.) under the New York - New Jersey Class I price.

Graph 2 shows the same kind of picture for California's Class 4a and 4b prices in 1990 and for the M-W in 1990. The top line is the M-W price by months. California divides up its manufacturing usage into two classes: 4a is butter and powder usage while 4b is cheese usage. The bottom line depicts the price for milk used to make butter and powder (4a). In 1990, our 4a price averaged $10.51 cwt. compared to the M-W average of $12.21 or $1.70 under the M-W; our 4b price averaged $11.31 compared to $12.21 or 90 cents under the M-W. In spite of these relatively low prices, let me remind you that California production grew almost 8% in 1990.
Factors Affecting 1991 Production

Like the U.S. Congress, our California Legislature is also talking about emergency price relief for our producers. The call for emergency price relief is not terribly strong yet. In California our producers have repeatedly said that they wanted to enjoy the fruits of up markets, and I think that now they are coming to the realization that they also have to suffer through the pains of low markets. Although there is some talk of emergency price relief now, I have not tried to factor that into my projections. The numbers that I will give you assume that we will not have any extraordinary increase in our prices other than the kinds of increases that Jim Miller talked about, triggered by some strengthening in the markets in the latter half of the year.

The Nutrition Labelling and Education Act of 1990 (NLEA), signed into law in early November of last year, said that no state could have food standards different than those established by the federal government. Strictly interpreted, that means that California can no longer enforce its 2-10 Lowfat Milk or its 1-11 Extra Light Milk standards. However, up to this time California has continued to enforce those standards by voluntary compliance. If California fluid milk standards were to be preempted as the NLEA calls...
for, certainly some of the consumption projections that we may be talking about and some
of the farm income projections would be reduced.

A third factor which is expected to impact the California dairy industry in 1991—but not
until the end of the year—is Section 102 of the 1990 Farm Bill. That is the so-called
“California Make Allowance Provision.” This provision prohibits a state from using a make
allowance in a pricing formula which is higher than the allowances used under federal
dairy programs. While the precise interpretation of Section 102 is the subject of debate, it
would unquestionably raise California dairymen’s milk price perhaps $.60 to $1.00 cwt.
This will increase California milk production at least in the intermediate run. The long term
questions are—Is anyone going to be able to spend money to build plants to process that
extra milk? OR Are farmers going to have to spend $3.00 cwt to ship milk east to find a
manufacturing plant? For 1991, Section 102 has put some plant growth plans on temporary
hold or shifted growth plans from cheese to butter/powder. To me this is the most ominous
and distressing sign of all. As far as I’m concerned, California in particular and the U.S. in
general needs less butter/powder. Yet, I think Section 102 is going to hurt the California
cheese industry—particularly the proprietary side of the cheese industry—much more
seriously than it’s going to hurt the butter/powder industry. I believe many cooperatives
in California will figure they can break even or maybe even make a little money on butter/
powder, but that they will lose money on cheese. I expect we will see a shift toward butter/
powder capacity beginning early next year.

The last factor impacting California production, prices, and state of mind this year is the
drought. I’m sure you’ve heard a lot about it. Quite frankly I’m here to tell you that I can’t
tell you what it means. California agriculture is so large, so diverse, and water comes from
so many sources and via a myriad of delivery mechanisms that people are struggling to
figure out what it’s going to mean for agriculture as a whole, or for pistachios or avocados,
alalfa, or milk production.

But what we do know is that the situation is bad. Figure 1 shows data as of the 15th of
March. The snow pack is important in California not just because a lot of Californians like
to ski, but because that’s where a lot of our water is stored and when things warm up in the
spring, that snow comes down and fills our reservoirs. In Northern California the snow pack in the middle of March was 47% of normal; Central

![Figure 1: Snowpack as of 3/15/91](image)
California 45%; and Southern California 57%. Roughly half of normal, statewide. That is pretty lousy. But, if I had this same picture up here with the date of February 20th on it, those numbers probably would have been 25%, maybe even 18 to 20%. So, there has been a dramatic improvement in the past month. As one homespun analyst said recently, "The situation is no longer terrible, it's just bad!" And that's probably about the best way to summarize it.

Figure 2 presents data on our reservoirs. We've got about 155 reservoirs and the bars on the right represent all of them combined. The solid black bar is the most important one. These data represent about the same date—approximately the middle of March. At that time we had just over 50% of the normal level of water in those reservoirs. But, again, if we had looked at this as recently as three weeks earlier, that probably would have been about 25% of normal, so we really have had a tremendous improvement in the situation.

Consistent with the snow pack data and the reservoir data, rainfall is about 50% of normal as well. But it's improving. It's been raining over the weekend. It's still raining today, I understand; and snowing. So the situation is still getting better, but we're far from being "out of the woods."

What does all this mean? Particularly what does this water situation mean? Well, even before the rains and snows of the last three weeks, the consensus in California was that 1991 production, even if extreme drought conditions had persisted, would increase in California. Production costs would have been higher. Alfalfa hay would have cost more, silage would have cost more and might not have been available in some parts of the state. A lot of the alfalfa acreage is irrigated with ground water and although ground water supplies are being depleted in California there is still quite a bit of water down there; it costs more to get it out, but it's there. It appears that the alfalfa price, although water is a major input, is not as sensitive to the cost of water as many people expected. Right now farmers are paying $140 to $150 per ton but there's lots of alfalfa hay 500 to 700 miles away that can move west at about $160 - $170 per ton putting an effective cap on the local price. As Jim Miller
mentioned, dairymen are coming off relatively good years in 1989-90, so they should be in position to better withstand these cost increases than they might otherwise be.

I hasten to point out that there are some California industry analysts that believe the 1991 hay market will level out below $140 per ton and maybe less than the 1990 level.

In summary then, I don't think the California drought situation is going to seriously change the amount of milk that California will produce in 1991. My projection is that California production in 1991 will grow about 6%. That's down from about 8% in 1990. In January we were up about 6.5%. February the number looks like it might be close to 8%. I expect that to moderate as the year goes on.

Let's talk briefly about what California milk prices might look like this year. Graph 3 shows the Southern California Class 1 price—the top line is 1990 and the bottom line is 1991. I am expecting the 1991 Class 1 price to be more stable but dramatically lower. The 1990 average was $14.03. I am expecting the 1991 average to be down just about $1.00 to about $13.04. That assumes that our Legislature does not do anything to provide emergency price relief. If that occurs, obviously, these forecasts will be proven low.

Graph 4 is titled "The Lowest Class Prices," meaning in California's case, Classes 4a and 4b. The top line is 4a (butter-powder) while the other line is the 4b price (cheese). I do not see any recovery in our 4a price until about early summer. Maybe a little bit of strengthening of the cheese price as we move into the spring, but nothing very dramatic. As you see, neither of those prices nudges over $10.00, or at least doesn't stay over $10.00 very long. I'm suggesting that the 4a price might average about $9.80 and the 4b price about $9.67 for 1991—dramatically lower than 1990. But in spite of these numbers, and these are not numbers that I think most producers in California would disagree with, the consensus in California is that we will still see the kind of production growth that I talked about earlier.
Graph 5 is supposed to represent the California "blend price." I put "blend" in quotes because California doesn't calculate a blend price. We have two prices that farmers get. A quota price and an over-base or over-quota price. The blend price as graphed here is the average of those two prices. About half of our milk is covered by quota and the other half gets the over-base price. The top line is the 1990 quota price which averaged $12.01. Based on my forecasts, the 1991 blend price will barely creep over the $11.00 mark and will average $10.84 for the year down about 12 or 13 percent over 1990.

When I got out of the car at the hotel last night someone asked, "What are you going to tell us tomorrow—is production going to be up or down in California in 1991?" I answered: "It'll be up!" He replied "You're not going to make this group very happy tomorrow." I'm sorry about that, but this is as close to accurately predicting the California situation in 1991 as I can come at this time.
Manufacturing Industry Outlook & Perspective

*Dennis Braun, Milk Ingredient and Dairy Procurement, Kraft*

It's a pleasure for me to be here. It seems like I have a dark cloud hanging over my head wherever I go. I was in California recently, about three weeks ago, and I think as Bob Boynton said, it was about three weeks ago that it started raining out there and it hasn't quit raining since. When I got home, in the Chicago area, from that trip it seems like it's been raining there ever since. Then I get out here and it seems like it's raining too, and I don't know if I'm like Linus in the comic strips and I've got this dust cloud or rain cloud hanging over my head all of the time, but I hope it's not going to stay.

I was asked today to talk about the manufacturers' perspective of the dairy supply/demand situation. I want to hit on three broad area categories. 1) Review supply/demand conditions taking a perspective of a manufacturers point of view. Probably looking at some of the same data as Jim did this morning and Bob eluded to. But, hopefully, from a little different perspective. 2) Looking at the problems of price volatility and what it has done for us. 3) A little bit on supply outlook and some concerns.

I don't expect everybody on all the charts that I show, to really see the numbers because on a lot of it the numbers really are not that extremely important, it's more the trend that is important. In this chart that shows the retail price index of all foods, in other words it's the generally price level of foods in the United States, and looking at the all-dairy price of foods. You can see starting it 1987 all the way through 1989, prices have been going up, but dairy prices have been going up slower than other food items. I think that has a lot to do with what has happened on the farms and in the manufacturing plants to improve productivity. Production per cow seems to be the important factor that is pointed to the farm level. Manufacturing level it's the economies of scale of larger plant operations, larger bottling operations and the consolidations within the industry. But I think that as you look at 1990, you see that red line which is the dairy products prices blipped up substantially whereas the other foods had not. We had a little bit of a drop in 1990 and then came back up. Jim Miller eluded to that as not being sure if that was the start of the down turn in our demand for dairy products or if it was the general economy, the GNP and other things that have given us a problem on the demand side. Because as we look at demand or commercial disappearance, as the USDA numbers indicate, the red line is 1990, the green line is 1989, and the blue line is 1988, and as you can see, primarily on the red line, total commercial disappearance has been tailing off ever since mid last year. I, like Jim, don't have any real reason for that taking place, it's probably a combination of the factors that I just pointed out before. As well as the general economy and like everything, it's so hard to really determine...
what has happened, other than it has happened. It is a reality and we on the manufacturing side of the business have to react to that and I think that that's one of the main things that I want to point out, we, like a lot of the industry, have a hard time reacting to demand drops. Because at the same time that demand was dropping, of course we had cheese production, 1989 is the green line, 1990 is the red line, we had cheese production continuing to grow all the time. Where we show that the problem showed up is what we refer to as inventory or ending stock numbers as it's reported. Again, 1989, as we were going into the fall months, the stocks of cheese or the inventories that were in commercial hands were quite low and as we started out in 1990, the red line, they were building at a very high rate until they peaked in July and started taking a slight seasonal decrease which was probably more the result of cheese starting to move into the government stocks which again in 1989 is in the green and 1990 is in the red, but as I think as you saw on the previous chart, the industry cannot move very fast at reducing its problem when you've got an increasing production of cheese and actually a declining demand even though prices fell to the level that they could sell to the CCC or would be the same as would be to selling to the government as it was to the market. Industry still cannot adjust very quickly because even as we enter the beginning of 1991, we still had extremely high inventory levels of cheese.

I want to briefly touch on this, and I apologize, Jim, that I have this titled wrong. This should be the US and International Market for Nonfat dry Milk. The red line is the so-called International Market for Nonfat Dry Milk starting in 1988. The blue line is the government support price and, of course, the roller coaster line is the US, so-called, market price for nonfat. And this kind of roller coaster I want to talk about too, that I think everybody has experienced. And a lot of it, production was not really all that unpredictable. We see, normally, production would have a fairly large swing as the butter-powder plants take up the swings in the first and second quarter of the year. The so-called flush months for the majority of the industry and milk moving out of the butter-powder plants and into fluid and other products as we get into the second half of the year. But, of course, the first half of 1990 we saw the red line down somewhat as milk was still moving into cheese and other uses. And as we got farther into 1990, milk, of course, was moving, trying to move out of cheese, not as successful as some people would like to have seen, but, it was enough to put the 1990 production over 1989.

Again, we had the same problem with out inventories. Our industry is not good at adjusting inventories in nonfat the same as cheese. Our inventories got very high at the end of 1990. And even coming in to 1991, we still had very high inventories, a problem getting those out. And, as you can see, in this graph, CCC or government purchases escalated substantially as we started at the end of the year. I think that the key take away from most of this as I was pointing out all the way through, is that we do have a hard time on a manufacturing sector, predicting demand, predicting supply and once we see changes in either one or the other, the products coming in through the door, or the products going out of the door, it gets very difficult for us to recognize the change in those trends and then to make adjustments to them. And that's why I think that we like to see as much stability in the markets as possible. Any time that we are building inventories or are short a product, it's going to add additional costs all the way through the system.

-27-
One of the other problems that we look at is price volatility. This is a chart that starts in 1980 and the green line tracks the US All-Milk price, or the milk price paid to producers. The red line tracks the government support price for milk and the bottom, darker line, is basically the M-W, which basically tracks all milk, just at a different rate. But, for the first part of the 1980s or most of the way through the 80s, we had some seasonal swings in the milk price. Down in the spring, up in the fall. And, I think, most of the manufacturers realized that a swing like that is healthy because the demand for a lot of the manufacturing products is stronger in the second half of the year, even though the flow of milk is larger in the first half of the year. A seasonal swing like this, I think, to a large extent, encourages production to meet the seasonal demand, but more so than that, it helps us to carry the inventories, or at least we can hold on to the inventories in the spring of the year or the middle part of the year to meet the demand in the fall of the year. And, I think, the other thing that the government or CCC buy-back program of 110% helps keep a lid on that price swing in the fall of the year. The biggest problem that we have when we get into the volatility situation that we saw in the late 1980s and the last couple of years, is really on planning. It's difficult for the manufacturer to know whether to store inventories, to know whether there is going to be enough production of milk in the latter half of the year to meet the commercial demand of the time or whether inventory should be stored. Much greater risk has to be taken at that point in time. Just as it is for dairy farmers. I think that it creates a real problem not knowing whether to expand or how to manage the cash flow on an operation. I think the California producers have said for a long time that their inventory, in California, would not have grown as quickly on the production side of milk, if it had not been for stable pricing and the lenders would not have gone along with them, and would not have been able to predict the prices and returns as easily. And I think that has a lot of truth even in today's lending institutions, are not as willing to lend, whether it be a manufacturer or farmer, lend money for expansions or changes in times of real volatility in prices.

One other problem that volatility in prices create in Federal Order pricing, all of you realize, is that under the federal order system you've got Class I, Class II, and in most cases Class III class markets in which the prices change a little differently from month to month. Class II and Class III may respond a little more quickly to commodity markets and you can have a slight lag in Class I. When you get big changes in these markets it creates short run opportunities or short run problems, whether it be the bottler or class II manufacturer. And you get things like reconstituting nonfat, replaces some of the products. And you have a lot of people becoming very ingenious on how to take advantage of it or how to make changes within their system to take advantage of that volatility which is really short run and the federal order system is not set up to handle that. Also the volatility does create regional problems, some regions of the country will respond differently because of Class I differentials that are higher or lower and some regions will respond differently depending on the manufacturing base in those regions. It's going to create some short run shifting of milk utilization, which is really not necessary and probably shouldn't happen for the long run.

And then you've got the other problem with the big volatility is that the cheese market doesn't always move with the butter-powder market. I think that the California Class 4a
market didn’t necessarily track with the 4b market and that’s where I’m referring to some problems within the industry.

The other thing that the price volatility creates problems on the consumer side. We talked a little earlier on the consumer demand, consumer prices. The consumer doesn’t like to be surprised with price changes either. You get a change and all the sudden you get the consumer that’s just like any other business man that’s affected with a price change, they’ll look at it and say “Well, what’s my next best option? Do I have an option?” Consumer prices do make a difference, and the consumer’s buying patterns do tend to change. We don’t know if our pricing in the last couple of years has really affected that or not.

The last area that I’d like to touch on about price volatility is the USDA budget. We all need to know what the USDA programs are, the CCC programs or purchases prices. They’ve got a budget to live with, Congress has allocated them just so much money to spend and they have to live within that budget just like the rest of us unless we go ahead and change the laws. But we are at the mercy for them to make changes within the year that can give us some surprises as well.

One of the things that I think that we’re glad for in the dairy industry is that on the demand side we don’t have a chart like this - like the egg people do. I think that advertising has played a very important role in that. I’d like to commend anybody that is involve in the advertising sector of the business, because if you don’t have that kind of chart at least for the dairy industry.

Also on the supply side, one of the things that we are concerned about is the continual shift of milk production from one region of the country to the other. In 1979, the Southwest had 5 percent, in 1989 the Southwest part of the country had 9 percent. In 1979, the West had 18 percent, in 1989 the West had 22 percent. And, of course, most of the shift is taken away from the Midwest and Northeast regions.

The other issue on supply and one of the shifting things is “What does it cost to produce milk?” I’ve done some work to see if we can come up with “What does it cost to produce milk?” The lines on this graph, the level of the lines are not very predictable by any means. But I think that the slope of the line is important. To help you walk through it, the red line shows what it costs to produce milk in California. In other words, the people on the left hand side of the chart, about 10 percent of the milk, can be produced at a low cost. When you get over to the right hand side of the chart, that shows the increase of the producer’s costs, the highest 10 percent. I have compared the California cost curve to that of the Northeast producers. To me what this says is that there is a substantial portion of the milk produced in the northeast that can compete with the California style producer, but yet as you move farther and farther to the right, there is a significant portion of milk in the northeast that has extremely high costs to manufacture. So that there is a big difference on the farms in the production side in the northeast, whereas in California there is not a large difference from the producer who is at the low end of the cost of production scale to the high end of the cost of production scale. Similarly, a chart comparing California and the
Midwest. The Midwest is not immune to this as well. Only the shape of the curve is slightly different. But, I think, it does concern us from the manufacturing side of the business, as can a significant portion of the Midwest and Northeast milk be produced at a lower cost. California has made the adjustments. My opinion is that there is a significant portion of milk that is produced in the Northeast and Midwest that can compete and probably in the future there will be many more of those style producers able to compete, too. But until that adjustment takes place, there is a concern to the volumes of milk that would be available.

Let me wrap up, briefly, in saying what I think Bob had eluded to and I a lot of people say that there is big differences and advantages in California. Recently when I was in California I had the opportunity to talk to Tony Mendez, who is a very articulate California producer, but I think it’s very typical of the producers in that region. He went through a scenario as why California is the way it is. But the biggest thing that impressed me was the attitude. The dairymen there want to produce milk. They look at themselves as dairymen. The thing that surprised me is that they were not tied to the land. They would move. They were businessmen that took a bundle of resources, and looked at a lot of so-called “nonconventional” things and would say “Yes, this right for my operation to lower my costs”. They would move from region to region and he was not hesitant to say “we’re not tied to the land, we’re going to move to those regions of the country that we can consolidate the bundle of resources to produce milk the cheapest.” That’s where the California dairymen will do it, because he’s dedicated to producing milk and in essence he said the California dairymen will produce milk, because they understand the cow, they understand how it should be produced.
Since 1624 when the first cows arrived at the Plymouth Colony, there has been a lot of exciting activity in the dairy industry here in New England. Milk production has increased from 1500 quarts to more than 6600 quarts per cow annually in the last 150 years and the U.S. leads the world in milk production per cow—some 14,300 lbs. per year in 1989.

(Dows are in.)

Dairy is a 28 billion dollar industry at retail prices and 22 billion at wholesale. At Dean we do about 5.7% of the wholesale total.

As an industry, fluid milk has had three of the most unusual years I can ever remember. We contended with:

- drought
- too much rain
- roller-coaster cheese values
- fat devaluation
- milk shortages
- skyrocketing fluid prices
- plunging milk prices

RAW MILK PRICING
1989 vs. 1990
Outlook for 1991 is for a more "normal" situation, if there is such an animal.

In fluid, rising prices hurt margins for processors. Steady prices lead to renewed competition. Lowering prices often helps processors catch up on what they lost on the increase. So '91 will be steady but highly competitive—recent market trends bear this out.

**PRICES: WHAT'S UP, WHAT'S DOWN**

<table>
<thead>
<tr>
<th></th>
<th>1971 Price</th>
<th>In Today's Dollars</th>
<th>Today's Price</th>
<th>% Change in 1991 Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levi's jeans</td>
<td>$6.98</td>
<td>$23.56</td>
<td>$38.00</td>
<td>61%</td>
</tr>
<tr>
<td>N.Y.-Wash. air shuttle</td>
<td>$27.00</td>
<td>$91.12</td>
<td>$142.00</td>
<td>56%</td>
</tr>
<tr>
<td>First Class stamp</td>
<td>$0.06</td>
<td>$0.20</td>
<td>$0.29</td>
<td>45%</td>
</tr>
<tr>
<td>Toyota Corolla std. model</td>
<td>$2,145.00</td>
<td>$7,239.00</td>
<td>$9,618.00</td>
<td>33%</td>
</tr>
<tr>
<td>Broadway musical</td>
<td>$15.00</td>
<td>$60.62</td>
<td>$60.00</td>
<td>19%</td>
</tr>
<tr>
<td>N.Y.C. subway token</td>
<td>$0.30</td>
<td>$1.01</td>
<td>$1.15</td>
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<tr>
<td>Hershey bar (one ounce)</td>
<td>$0.07</td>
<td>$0.24</td>
<td>$0.26</td>
<td>8%</td>
</tr>
<tr>
<td>Salmon (one pound)</td>
<td>$0.98</td>
<td>$3.31</td>
<td>$2.95</td>
<td>11%</td>
</tr>
<tr>
<td>Drake Hotel (dbl. room)</td>
<td>$65.00</td>
<td>$219.37</td>
<td>$195.00</td>
<td>11%</td>
</tr>
<tr>
<td>Disneyland (fam. of four)</td>
<td>$37.80</td>
<td>$127.57</td>
<td>$100.00</td>
<td>22%</td>
</tr>
<tr>
<td>Sirloin steak (one pound)</td>
<td>$1.45</td>
<td>$4.89</td>
<td>$3.65</td>
<td>25%</td>
</tr>
<tr>
<td>Los Angeles Times</td>
<td>$0.10</td>
<td>$0.34</td>
<td>$0.25</td>
<td>27%</td>
</tr>
<tr>
<td>Seattle pay-phone call</td>
<td>$0.10</td>
<td>$0.34</td>
<td>$0.25</td>
<td>27%</td>
</tr>
<tr>
<td>Milk (half gallon)</td>
<td>$0.58</td>
<td>$1.96</td>
<td>$1.39</td>
<td>29%</td>
</tr>
</tbody>
</table>

Outlook for fluid depends greatly on raw milk prices and we expect them to be steady until late Fall. (In the Army, when we couldn't predict, we'd just say it depends on the weather and the terrain...that may be appropriate here.)

Competitive times will prevail—so much for the conventional outlook. Let's get behind that and look at some really exciting prospects for fluid and frozen desserts. Besides the economic trends mentioned above and with which you are all familiar, other more long-lasting trends are occurring in our part of the industry to include milk, ice cream, cottage cheese, etc.

In my experience, I've seen a lot of changes, but most were over several years and generally involved packaging and dis-
tribution. What we all longed for was a way to differentiate our product—seen as pretty much of a commodity-type product—from that of our competitors.

Than came FITNESS! Jogging, aerobics, tennis, diets and the concerns fueled by the trends of young people to stay single longer; to want to “feel good about themselves;” rapid increase in working women, and a general concern for appearance among relatively affluent consumers. We should also include concern about heart disease.

Perhaps pressed by the latter, the dairy industry, after a defensive, slow start, began to market fitness and health.

We began to take notice of consumer concerns like:

1. All natural ingredients
2. Salt content
3. Calories
4. Fat
5. Cholesterol
6. Lactose intolerance
7. Calcium
8. Healthy diet

Now we are in the midst of a dairy marketing revolution. We’re almost as diverse as the soft drink industry with, for instance, cottage cheese broken down by:

- Salt free
- Large curd - 4%
- Small curd - 4%
- Lowfat - 1%
- Fat free
- Flavored

And all in at least 3 or 4 size containers.

New products have come forward with amazing speed. The number topped 10,000 for the first time in ’90. The dairy case is the center of frenzied and feverish competition for space from pastas, fruit drinks, salads, low cholesterol eggs, cheese, etc.

We’ve developed niche items such as calcium-added milk, lactose reduced milk, nondairy “milk,” reduced cholesterol milk, and a host of nonfat lowfat, reduced fat, light and even high-fat milk for the Hispanic trade.

<table>
<thead>
<tr>
<th>Food &amp; Beverage Introductions</th>
<th>1989 SKUs</th>
<th>1990 SKUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>679</td>
<td>540</td>
</tr>
<tr>
<td>February</td>
<td>491</td>
<td>446</td>
</tr>
<tr>
<td>March</td>
<td>582</td>
<td>486</td>
</tr>
<tr>
<td>April</td>
<td>673</td>
<td>1470</td>
</tr>
<tr>
<td>May</td>
<td>1224</td>
<td>1182</td>
</tr>
<tr>
<td>June</td>
<td>624</td>
<td>1244</td>
</tr>
<tr>
<td>July</td>
<td>832</td>
<td>975</td>
</tr>
<tr>
<td>August</td>
<td>901</td>
<td>711</td>
</tr>
<tr>
<td>September</td>
<td>621</td>
<td>1029</td>
</tr>
<tr>
<td>October</td>
<td>832</td>
<td>1047</td>
</tr>
<tr>
<td>November</td>
<td>582</td>
<td>817</td>
</tr>
<tr>
<td>December</td>
<td>379</td>
<td>694</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8420</td>
<td>10641</td>
</tr>
</tbody>
</table>

Cumulative Changes vs. 1991 SKUs 1990/YTD (%)

- January 924 71.1

Source: Marketing Intelligence Service
Light sour cream, and even lactose-reduced milk for dogs are there too among the 1,000 or so SKU's in a major dairy case. The frozen case has frozen yogurt, Light "ice cream," Fat Free "ice cream" and even Frosty Paws for dogs and Frosty Claws for cats!

<table>
<thead>
<tr>
<th>NEW FOODS &amp; BEVERAGES RANKED BY ABSOLUTE CHANGE, 1989-1990</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTS</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>SKUS</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td><strong>Top Gainers</strong></td>
</tr>
<tr>
<td>Ice Cream</td>
</tr>
<tr>
<td>Spices, etc.</td>
</tr>
<tr>
<td>Cheese</td>
</tr>
<tr>
<td>Popcorn</td>
</tr>
<tr>
<td>Coffee</td>
</tr>
<tr>
<td><strong>Biggest Losers</strong></td>
</tr>
<tr>
<td>Soft Drinks</td>
</tr>
<tr>
<td>Yogurt</td>
</tr>
<tr>
<td>Rice &amp; Rice Combos</td>
</tr>
<tr>
<td>Chips</td>
</tr>
<tr>
<td>Cereals</td>
</tr>
</tbody>
</table>

Sugar-free novelties are hot and premium ice cream still holds a respectable share of the case.

At Dean we have introduced frozen yogurt, Light Ice Milk, Fat Free non-dairy dessert, Cal 80 fat free yogurt with NutraSweet, Easy 2% (a lactose-reduced milk), sugar-free novelties, and liquid Ultra Slimfast.

Fat free cottage cheese and Light sour cream are ready to roll—and we are conservative on new products. The point is that dairy is into new marketing in a big way. Today's consumers have come from just wanting to look good, to wanting to feel good and be healthy too. So the big theme is eating healthy. But guess what? Dairy products have always been exactly that—healthy food with good taste too. Make no mistake, unlike medicine, healthy foods have got to taste good or there won't be repeat sales. Remember that before you bet the farm on fat frees! Taste is first and foremost.

There are great marketing opportunities here for dairy—the chance to differentiate with trade names and value-added attractions like fortified skim milk—a real winner—up 25% at Dean in 1989.

Along with these marketing opportunities, comes the need for better knowledge of the market. Spaceman, Apollo, and others are computer tools used by the sharp young dairy
marketing people you find in the industry today. They will inherit the world of dairy marketing.

So for the next year or so, I see in the way of good news for fluid and frozen dairy:

1. The ability to produce what the consumer wants:
   - lowfat
   - nonfat
   - niche products
   - sugar free
   - frozen yogurt

2. Better and more advertising and promotion:
   - Farm Bill of 1990
   - Processor Program

3. Stable milk prices

4. Special ability of the fluid industry to manage and make profits in highly competitive markets.

5. Lots of marketing excitement that benefits consumers and their health.
Concerns are:

1. Raw milk prices
   Need raw milk prices that assure adequate supply.

2. Product safety
   B.S.T.
   Antibodies

3. Waste disposal and recycling.

4. Consolidation of distribution channels bigger, fewer outlets.

5. Consistent industry conditions
   SB 520 could price products out of market.
   F.D.A.—leadership please!

It's a great industry, and these are very exciting times packed with opportunities.
Using Today to Plan for Tomorrow

Lowell Smith, Farm Credit Banks of Springfield

The dairy business is entering a time of change, one which is characterized by major swings in milk prices, higher levels of efficiency in production and more intense management than we've ever seen before.

Today, farmers are in the down side of the economic cycle as a result of a significant drop in milk price in the last several months. Cash flow is tight and in many instances, the income farmers receive is actually below their cost of production. They must "manage through" the current situation without overreacting. But even more important, they must position themselves so that they can remain competitive in the future.

During the past several years, dairy farmers have been enjoying an opportunity to get back into shape after some very mediocre years in the early 1980s. Some farmers "kicked back" and let the good times roll; some farmers increased the size of their operations, in many cases, using new debt; and then some took the opportunity to do a combination of things that tightened up their operation. They paid down their debt and made the other changes that allowed them to significantly reduce their cost of producing a hundredweight of milk. Now all of a sudden, the choices have disappeared.

Some of you may say that this is nothing new. We've been through these times before. Well, I disagree. What we are experiencing today is the beginning of the dairy industry adjusting to a more market oriented pricing system for their product. Not only will the milk price be more sensitive to supply, it will be more sensitive to changes in consumer tastes and preferences. No, ladies and gentlemen, this is not like any time we have seen before. This is a new era for the dairy industry and any farmer who wants to remain in business must have a well thought out plan of action for the short and long run and must execute the plan with precision.

Planning for Today

How many of you have heard the expression crisis management”? Whether you have heard it or not, it is very common farm management practice. Most of us have disciplined ourselves to be good firefighters but very few have trained to be navigators.

As a Farm Business Consultant, you can imagine that I run into a broad range of farm management styles and have an opportunity to observe which have the best chance of
success in different types of situations. In preparing for this presentation, I went to my best resource to see what kind of advice I can best offer you today. That resource of course is the farmer base that we serve. I asked them what they were doing on their farm operation to compensate for the significant drop in cash flow that they were now experiencing. The resulting answers were very diverse and very interesting.

One farmer talked about taking better care of detail. He was going to look more closely at least-cost options for feed and bedding, watch the milking procedures more closely, and make sure that feed rations were being mixed properly and fed on a timely basis. He was also challenging his field foreman and mechanic to look for ways to save on crop expenses and reduce repair costs.

I call this MBWA, management by walking around, and some of you might say that our “farmer friend” should be doing these things all the time. I agree. But when times are good some of us tend to back off a little and let some profit fall through the cracks. Now we must plug the leaks and cut the fat wherever we can.

Another farmer who had recently lost his herdsman has decided not to replace him but instead fill the role himself. He was actually quite excited about it since he had wanted to try three times a day milking for the last year and couldn’t convince his herdsmen to do it. So, as you can see, he expects to save on his labor expense and at the same time, increase his milk production.

Several farmers were cutting back on fertilizer for the short run while others were adding cows wherever they could put them.

One farmer was selling his young stock, dropping his rented land, and buying whatever extra feed he needed to support just the milking herd.

And, as you might expect, some are considering selling out.

I’m sure none of these ideas are new to you. The point is, these farmers are taking action. And in most cases, they are taking intelligent action. They know what it costs them to produce a hundredweight of milk and they know they must adjust when the milk price drops.

Let’s look at some of the inputs needed to produce milk and see what some of your options might be to reduce those costs in the short and in the long run.

1. Cows - young stock are optional. Let someone else grow them... provide the feed and/or labor.

2. Buildings - a necessity; if building new or adding on, design for peak efficiency and flexibility.
3. Feed - land and equipment are optional. If you are growing your own feed, you should treat these as a cost of production. Some land is needed as a buffer zone.

4. Labor - Think about how you use labor....change schedules, contract for certain tasks, use professionals...

5. Capital - If you’re not borrowing your capital you should be paying a return on your personal funds.

Earlier, I mentioned what several farmers are doing in each of these categories to either control or reduce their costs of production. You need to look at your own operation and decide where you have options to do the same. In general, you need to seek the maximums in:

1. Production Efficiency

2. Cost Control.

3. Return on Equity


Set goals for yourself and measure your progress on a continuing basis. No longer can you afford to look at the checkbook at the end of the year to see how well you have done.

Planning for Tomorrow

What about tomorrow? What can you do to make yourself more competitive when the next down cycle comes along?

I want you to challenge yourself to look at some new and different techniques:

1. Joint ventures. There are several different enterprises in most every dairy operation in the Northeast. Each enterprise has its own special challenge and its own level of optimum efficiency. As an example, let’s take the milking facility. Today’s parlor standards are based on maximum milk output per milker. This means efficient cow traffic such as straight lines between holding area and parlor and rapid exit and a high level of automation in the gates and in the milking equipment. In fact, most of today’s parlors are being designed so that one person can operate them alone. Such a facility can easily cost $250,000 to $300,000.

Instead of building this facility on your own and being forced into doubling and possibly tripling your herd to make the operation fully efficient, you might want to consider forming a joint venture with one or two neighbors. With today’s milk measuring technology, cows could be combined, individual cow records could be tabulated automatically, and milk sold could be properly apportioned among the
joint venture members. This also allows you to concentrate the majority of the waste handling tasks and gain more efficiency in this area as well.

Furthermore, one member of the venture may wish to specialize in raising young stock. Another member may want to concentrate in raising the feed. All are options which can be considered under the joint venture concept.

2. Move to a different farm. Don’t restrict yourself to thinking about what you can do just on the farm where you are now located. As the market gets more competitive, there will be a number of newer facilities that will go out of business. If the land base is right and/or there is feed available in the area, consider buying a used facility as opposed to building a whole new one.

Moving to an area where dairying has a long term future might be another reason. Many dairy farmers in the Northeast are finding it more and more difficult to find the critical services they need to continue farming. Here I am speaking about veterinarians, dairy supply companies, and equipment dealers.

3. Financing your business. Roy Ferguson recently published an article in the Consultant entitled “ARE YOU PTP”? Mr. Ferguson is President of a consulting firm located in Tulsa, Oklahoma and is currently President of the American Society of Agricultural Consultants. His article dealt with how one positions himself so that he can react quickly to changing economic situations. Thus his title PTP - “Poised to Pounce”. Most of Mr. Ferguson’s clients are beef and hog operations who have had to learn how to react when market prices change quickly.

I felt the most important point he made in his article was the need for farm operations to eliminate unproductive debt. “…three justifications exist for incurring debt in any business. The first is to increase sales to boost profitability. The second is to decrease expense to improve profitability and the final motive simply concerns satisfaction of a personal desire to acquire something. Unfortunately, emotional involvement with “I want“ often prevents sound evaluation of actual need linked with financial soundness”.

Ferguson goes on to say “debt that is not self amortizable within a definable, predictable span of time accelerates a businesses’ financial risk in direct proportion to the amount that is incurred”. A case in point would be that land should pay for itself if it is really a sound financial investment in your business.

You must also look at your present accounting system and be sure that it gives you the kind of information you need to make sound business decisions on a timely bases. Accounting just for tax purposes is no longer enough. Pounds of milk produced per man, cost per cwt, and return on equity represent the kind of information you need to better manage your business.
It is also the kind of information your lender will require as credit standards get more and more stringent. When you display your past performance and future projections, in a format that is results oriented, you tell the lender that you understand your business and can control its future.

Marketing your product. You must constantly be reviewing the options available to you for marketing your milk. You should seek those alternatives that give you the most control as well as the best price. Through cooperative marketing of milk, you have the opportunity to follow your product further into the marketing stream as well as a chance to voice your opinion on how your product is being marketed. Just keep in mind that the opportunity for having options in marketing your milk starts by having a quality product in sufficient quantity to attract the right buyers.

**WHO'S GOING TO FARM WITH YOU 10 YEARS FROM NOW?**

The final point that I wish to focus on in our discussion is the development of leadership for continuing your business in the future.

I firmly believe that good people can solve a lot of problems. Too many times we hire people to do a particular task without any thought as to what the potential of the person is to grow with the farm operation. This is dangerous because one of two things generally happens: either you are constantly turning personnel over or you are stopping the growth of your business because you have reached the maximum potential of your staff.

Every farm's plan of action must include the development of the future leadership of the farm. This is by no means an easy task. First of all you must be willing to hire and pay for people with intelligence and personal initiative. Many of you have children who will someday want to enter the farm operation. You must look at their potential as objectively as you would someone being hired from the outside.

Next, you must be willing to commit time to developing a training program that will ensure the future leader or leaders of the farm a good background in your total operation, as well as a thorough understanding of the financial structure of the farm business. I would encourage you to include in your training program outside activities and other programs which can help develop young people into strong future leaders. During the past six years, I have been involved with the Empire State Food and Agricultural Leadership Institute. The primary purpose of this program is to train new and better leaders to improve and promote New York State agriculture and food systems. Involvement in such a program will tend to stretch a person in a leadership role and expand his capacity to develop and understand alternatives and make better decisions.

In order to maintain good people once you have them hired and trained, you must be sure to give them responsibility. If they do not feel they are being used to their full capacity, they will become bored and move on.
You will also have to consider how you might get them involved financially in the operation. Most will want to own some cattle and many will want to be a part owner in the operation and eventually have the opportunity to purchase your share when you retire.

The farm must be profitable. It is hard to stay excited about your job and your future if the business is losing money. Also, a profitable business usually provides a better standard of living for its staff and affords the opportunity for the younger generation to start buying in.

Working conditions will also be a consideration in developing and maintaining good people in your farm operation. Today's generation wants a healthy working environment not only for themselves but for their co-workers. Also, they may want a different lifestyle than you do. They may want more free time to spend with their family and to do other activities of personal interest to them. Farming does continue to be a way of life, but the way of life is changing.

**SUMMARY**

In closing, let me briefly review the major points in my presentation. First, you need to do all the little things and some of the big things in order to minimize the damage caused by the down milk price during the next one to two years. Second, you need to plan how you want to run your business once the market turns around. Plan for Tomorrow. Think in broad terms and act boldly. What are your options for providing a least-cost ration to your dairy cows? Do you need to own all the land you have now? Should you relocate your farm to some other area in the Northeast where dairy farming has a longer range opportunity for growth and prosperity? Is the debt you currently carry productive debt and can it be amortized over a reasonable period of time considering your current level of profitability? Third, are you developing the right work force and core of leaders to support you in the changes that must be made and to carry on once you decide to retire?

Those that are going to survive in this highly competitive dairy business are doing all the little things right and will be spending today planning for tomorrow.
I would like to offer some thoughts on managing under an environment of market volatility and some observations on the nature of producer-processor relationships and the current debate over marketing margins. For the most part, my comments will relate to points made by this morning’s speakers.

The Producer-Processor Relationship

I believe dairy producers and processors often have different opinions on issues and define problems differently because they approach dairy markets from drastically different directions. Neither group is right or wrong—just different. See if this makes sense to you.

Producers are, generally speaking, price takers. If they need a higher price, they must either wait and hope for product markets to rise or seek relief from government. They are not marketers in the normal sense. They are production-driven, knowing they will sell whatever they put in their bulk tank at prices set by forces generally outside their control. They do not have to convince anyone to buy their product (i.e. market it) or divine a selling price at which a willing buyer will take their milk instead of their neighbor’s milk.

Processors, on the other hand, are marketers. They know that they have to find the right combination of price-quantity-quality-service that will cause a buyer to choose their offering over those of their competitors. Their ability to pass on cost increases is not related to government action but rather the competitive process and their marketing skill. If the price they set is wrong, they’ll have a lot of product that they can’t get rid of, or product that will have to be sold at distressed prices. Every day, every week, every month, the processor is out there trying to figure out what’s the highest price they can get without losing the business to a competitor. And that’s a daily decision. They have volatility and risks. That means that the processor is going to try to do everything that s/he can to preserve and/or grow their margin. That point is equally true for the retailer.

Processor Margins

I heard a questioner state this morning that “Retail prices and margins are coming down and that’s certainly good news to the farmer!” That may not necessarily be true. As dairy farmers, ask yourselves, do you want processors’ margins to come down? Do you really want the retail price to come down? Maybe you do, but maybe you don’t. Is there evidence
that the dairy processing industry in the United States is not particularly healthy? I think there is. We’ve had some large processor bankruptcies. That’s not good for farmers, certainly not for the farmers that didn’t get paid. We had a big bankruptcy in California—Knudsen, a $30–36 million farmer loss. The old Pet Milk—a recent bankruptcy; Foremost in Washington—bankruptcy. Those are signs that at least some parts of the processing sector aren’t healthy and that does not bode well for farmers.

Another area where there’s evidence that the processing sector could be a little healthier than its been is new investment. There has not been strong investment in new fluid milk processing facilities. You sure don’t see it in California. The new investment we’ve had by and large has been done by grocery chains. I believe we’re at a point—at least on the West Coast and probably in lots of other places—where more investment in new and improved processing facilities is badly needed. This means that you want processors’ margins to be a little healthier than they have been.

Rollin Reiter noted this morning that stability in farm prices leads to increased competition at the processor level. Out in California I haven’t seen in recent months a lot of competition for new business—wholesale accounts switching suppliers. I haven’t seen processors out there actively beating the bushes for new accounts while we have had these big swings in farm prices. They are busy managing risk and answering the questions and concerns of their customers regarding volatility. I suggest that this is another price of volatility. The risk farm price volatility creates distracts management and competition to some degree and may be something that’s negative.

**Price Gouging**

We’ve got a lot bigger problems in the dairy industry to worry about than spending our physical and emotional energy on price gouging concerns. Realistically, even if it’s true, what are we going to do about it? And even if it’s true, is it so bad? I don’t know. But what I do know is that worrying about it, talking about it, using our energy on it, is not very productive. Profits that exist in processing and retailing are going to exist because of competition. And, unless you want the government to set retail prices, you are not going to do much about prices and the profits that the retail industry earns. It is my recommendation to you not to lose a lot of sleep over marketing margins. They may not make you happy, but you’re not going to do much about them.

You want all three legs of the stool healthy. Producers have to be healthy, unquestionably. You want a healthy processing industry that can afford to invest and grow and do the kind of exciting marketing things about which Rollin Reiter was talking. And you need a retail sector that is financially healthy and wants to sell your dairy products. If profit margins on your dairy products aren’t very good, is that the kind of situation you want for your retailer? Don’t you want retailers to want to sell your product? To expand that refrigerated dairy case? The thing that’s going to make that happen is healthy profit margins.
As indicated on the graph, the M-W price series was at or near support until 1984, when price supports began a series of programmed declines. Concurrently, the Milk Diversion Program and Dairy Termination Program were implemented, reducing supply and therefore increasing the commercial price. By mid 1988, the drought caused further declines, depleting CCC inventories of cheddar cheese and non-fat dry milk. With milk supply inadequate to satisfy commercial demand, substantial fluctuations in commercial price resulted.

Volatility had begun. The price of milk was not further influenced by the support price until the end of 1990, when supplies increased.
Dairy commodity prices for cheddar cheese and non-fat dry milk followed generally the same pattern as the M-W price. However, commodity prices tended to lag behind the rise in milk price, creating problems, especially for cheese makers. The fluctuations in commodity prices are further evidence of volatility resulting from declining support prices, reduced milk supplies, non-fat dry milk exports, and strong commercial demand.

—What Happened?
—The Way We Were
- Federal Price Support level drove the commercial price as illustrated previously
- And, put a lid or cap on the commercial price as well with the CCC “sell back” policy of selling back Dairy stocks to the trade at 110% of the support price
- Volatility was controlled by federal law and regulation to a margin of +/- 10%

—Now
- Without the artificial parameters of a relatively high support price and 110% “sell back” provision, Dairy Commodity prices are commercially driven, whatever that means
—Example—The 1989 Milk Powder Story
- Industry assumption: Milk powder will always be produced in surplus and will never be competitive in the world market

—Wrong
- During 1989 well over 300 million pounds were exported commercially
- CCC stocks were non-existent
- Prices increased as much as $1.00 per pound, or $42,000 per truck load
—That’s what we’d call volatility!!
Nonfat Dry Milk (Extra Grade)
Central Wholesale Price vs. CCC Price

Commercial Exports
375 million pounds
(Spr 89 contracts - Fall delivery)

Butter (Grade A)
Chicago Mercantile Price vs. CCC Price
Net Manufacturing Value of Milk
Market Value less Make Allowance

<table>
<thead>
<tr>
<th>Month</th>
<th>Milk Price</th>
<th>Value</th>
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<tbody>
<tr>
<td>Jan-85</td>
<td>$17.00</td>
<td>$15.50</td>
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<tr>
<td>Jan-86</td>
<td>$14.00</td>
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<td>Jan-87</td>
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<tr>
<td>Jan-88</td>
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<td>Jan-89</td>
<td>$5.00</td>
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<tr>
<td>Jan-90</td>
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<tr>
<td>Jan-91</td>
<td>$1.00</td>
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</table>

Cheddar Margin vs. CCC Mfg Allowance
Commodity Value less Milk Price

<table>
<thead>
<tr>
<th>Year</th>
<th>Margin $/cwt</th>
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<tbody>
<tr>
<td>1980</td>
<td>$2.10</td>
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<td>$2.00</td>
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<tr>
<td>1982</td>
<td>$1.90</td>
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<td>1983</td>
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<tr>
<td>1984</td>
<td>$1.70</td>
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<td>1985</td>
<td>$1.60</td>
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</tr>
<tr>
<td>1990</td>
<td>$1.10</td>
</tr>
<tr>
<td>1991</td>
<td>$1.00</td>
</tr>
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</table>
1990- Panic Buying Followed— creating:

- Counter seasonal demand and price increase
- Burdensome inventories

— Reactionary Behavior
- Not visionary
- Not dynamic

— Furthermore
- Manufacturers paid too much for raw materials when supplies were short
- Manufacturers continued to pay too much when supplies were adequate
- Inventories created were too expensive
- Bottom line- not good

— When everyone else is doing something, that something is often wrong.

— Note to Farmers
- This is not to say that you do not need more money for milk, especially now that many of you are receiving prices below the cost of production
- But, the manufacturers still paid too much if they couldn’t recover the cost of raw material in the finished product
- Buy High ~ Sell Low
- If you figure out how to do this profitably, call me right away!

— Should Dairy Manufacturers be treated differently than other industries?
- There is some belief that the solution to volatility is purely technical
- That is:
  - Raise supports to a sufficient level to control volatility
  - Let Farmers pay the cost of clearing surplus by assessment
- Clearly there should by some technical correction, particularly in the method of pricing milk for manufacturing

— Two basic problems
  1. After the fact pricing does not work well under volatile conditions
  2. M-W often does not relate well to market prices
  - M-W led commodities on the way up
  - M-W trailed commodities on the way down
- Manufacturers need an alternative to the current M-W price, not just a calculated preannouncement, but a genuine alternative which relates to the market prices of dairy commodities

— Toward more competition, possibly a more global economy, and very likely volatility
- The direction from Washington seems clear—fewer government programs in dairy

— Therefore, we must alter the way we think and the way we manage in the milk manufacturing business
Butter/NDM Margin vs. CCC Mfg Allowance
Commodity Value less Milk Price

The Problem:

Managing under Volatile Conditions

— Would you like to go back to the “good old days” of +,- 10% and relative stability?
— Do you think that this is very likely to happen? Probably not.
— Therein lies the challenge...

“Ironically, the industry’s... success accounted for many of it’s problems by entrenching once useful assumptions. When conditions changed, managers didn’t challenge the assumptions that had worked well in the past. Instead they did what was common and easy—They managed by habit—Not with vision.””  Hirsh, Richard, “How Success Short Circuits the Future,” Harvard Business Review

— Industry Habits Challenged
- With artificial parameters gone, how did we respond?

1989- Caught Short
√ Inventories low
√ Raw milk in short supply
√ Dairy commodities as scarce ingredients
— Some realistic assumptions

(1) There will be some technical corrections in the regulatory system, such as:
√ A replacement for the M-W
√ Butterfat differentials will be further adjusted and/or some form of component pricing will be adopted
(2) That volatility will continue in varying degrees
(3) Markets will be more competitive, probably global

What to Do, What to Do

(1) Manage with vision, not by habit—creativity, not custom
(2) During periods of change, be wary of relying only on your experience.
(3) Sharpen forecasting capability and reliability realizing that a forecast is a forecast
(4) Realize that:
   (1) "Profit is a requisite, not a purpose of business."¹
   (2) "The purpose of a business is to create and keep a customer."²
(5) Flexibility, responsiveness to change
(6) Be sticklers on cost control
(7) Quality, total quality, not just bacteria counts
(8) Hands-on, informal management style, with horizontal, not vertical structure
(9) Involve employees, use their expertise
(10) Be industry-wise, know your business

Conclusion

But what about those of you who are saying, "wonderful," if I do all that management stuff, but the cost of raw material is greater than the market price, I'll go bankrupt! And you know, you're right!

But lest we forget one very basic assumption; that dairy products have utility. Consumers want, and are willing, to pay for our products, as evidenced by rising consumption during recent years.

Then if we accept the fact that we produce something of value, AND we apply sound economic principles, AND we apply sound management principles, AND we do not engage in self-destructive regulation, we can, and will, prevail.

But nobody said it will be easy.

ABSTRACT

A number of recent research studies have identified the dairy department as one of the most profitable in the retail supermarket. Direct product profit (DPP) analyses—which attempt to attribute all direct costs to individual products so as to determine net returns—confirm the high relative profitability of the dairy case. The dairy department has been shown to exhibit a DPP (in dollars per sq. ft.), significantly higher than many other major departments, in the case of the dry grocery department over four times as high. Moreover, this strength is a direct result of milk-based products. That is, butter, milk and cheese produced a significantly higher DPP than the fruit juice, margarine and dips, also typically carried in the dairy case.

Finally, this research also points to the positive space elasticity of the dairy. Space elasticity measures the relationship between retail merchandising space and the sales that come from that space. In the dairy department, the incremental sales that can be expected from each linear foot of display space is $13.75/week/1000 customers.

These results represent significant and positive findings for the dairy industry with regard to the potential retail profitability of dairy products but at the same time leave the industry with a considerable challenge: how to make most effective use of this information with retailers to improve the overall performance of the dairy industry.
MANAGING THE SUPERMARKET DAIRY
Outline and Worksheet

MANAGEMENT OBJECTIVES

PRIMARY: MEET OVERALL STORE GOALS FOR SALES AND PROFITABILITY
SECONDARY: MEET SHORT RUN GOALS OF DAIRY DEPARTMENT FOR IMAGE, SALES AND PROFITABILITY

KEY FACTORS

1) SUPPLY BASED:
   • PRODUCT AVAILABILITY
   • PRODUCT QUALITY
   • PRODUCT COSTS
   • CONSUMER PREFERENCES

2) DEMAND BASED:
   • CONSUMER PREFERENCES
   • CATEGORY GROWTH
   • COMPETITION
   • MERCHANDISING TOOLS
     * DISPLAY AND SPACE
     * ADVERTISEMENTS
     * PROMOTIONS
     * PRICE
     * PROFITABILITY
   ~ STRONG GROSS MARGIN TRADITION
   ~ NEW EVIDENCE:
     1. DIRECT PRODUCT PROFIT (DPP)
     2. ELASTICITIES - UNCERTAIN

DIRECTIONS FOR FUTURE

• SHORT RUN: MORE OF THE SAME
• MEDIUM/LONG RUN: MORE SOPHISTICATED USE OF ELECTRONIC TECHNOLOGIES AND DPP
• OPPORTUNITY AND RESPONSIBILITY OF DAIRY INDUSTRY FOR CUSTOMER EDUCATION AND PARTNERSHIP
### NEW PRODUCT TOTALS BY CATEGORY, 1986-1990

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<td>317</td>
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<tr>
<td>Paper products</td>
<td>27</td>
<td>47</td>
<td>100</td>
<td>121</td>
<td>174</td>
</tr>
<tr>
<td>Tobacco products</td>
<td>9</td>
<td>51</td>
<td>12</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Pet products</td>
<td>1934</td>
<td>51</td>
<td>50</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total, nonfood</strong></td>
<td>8042</td>
<td>2316</td>
<td>2375</td>
<td>2863</td>
<td>2943</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>8042</td>
<td>10,182</td>
<td>10,558</td>
<td>12,055</td>
<td>13,244</td>
</tr>
</tbody>
</table>

*New Product News, January 6, 1991*

### NEW PRODUCTS BEARING HEALTH CLAIMS, 1987-89

<table>
<thead>
<tr>
<th>Category</th>
<th>1987</th>
<th>1988</th>
<th>1989</th>
<th>% change ('89-'90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced/low calories/lite</td>
<td>432</td>
<td>475</td>
<td>962</td>
<td>+102.5%</td>
</tr>
<tr>
<td>Reduced/low fat</td>
<td>159</td>
<td>275</td>
<td>626</td>
<td>+127.7%</td>
</tr>
<tr>
<td>All natural</td>
<td>206</td>
<td>215</td>
<td>274</td>
<td>+27.4%</td>
</tr>
<tr>
<td>Reduced/low salt</td>
<td>281</td>
<td>202</td>
<td>378</td>
<td>+87.1%</td>
</tr>
<tr>
<td>No additives/no preservatives</td>
<td>52</td>
<td>153</td>
<td>186</td>
<td>+21.6%</td>
</tr>
<tr>
<td>Low/no cholesterol</td>
<td>70</td>
<td>126</td>
<td>390</td>
<td>+209.5%</td>
</tr>
<tr>
<td>Added/high fiber</td>
<td>55</td>
<td>56</td>
<td>73</td>
<td>+30.4%</td>
</tr>
<tr>
<td>Reduced/low sugar</td>
<td>120</td>
<td>52</td>
<td>188</td>
<td>+261.5%</td>
</tr>
<tr>
<td>Added/high calcium</td>
<td>53</td>
<td>4</td>
<td>27</td>
<td>+575.0%</td>
</tr>
<tr>
<td>Organic</td>
<td>—</td>
<td>98</td>
<td>140</td>
<td>+42.8%</td>
</tr>
</tbody>
</table>

Note: Health claims category totals are not additive, as new products may carry more than one health claim.

Source: Gorman's New Product News.
SALES INDEX ASSOCIATED WITH PRICE AND PROMOTION COMBINATIONS
FOR A MATURE BRAND IN CANNED GROCERY CATEGORY
CHICAGO MARKET

<table>
<thead>
<tr>
<th>PROMOTION CONDITION</th>
<th>PRICE INDEX (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
</tr>
<tr>
<td>SALES INDEX</td>
<td></td>
</tr>
<tr>
<td>NON-PROMOTED</td>
<td>100</td>
</tr>
<tr>
<td>AD ONLY</td>
<td>198</td>
</tr>
<tr>
<td>DISPLAY ONLY</td>
<td>213</td>
</tr>
<tr>
<td>DISPLAY AND AD</td>
<td>395</td>
</tr>
</tbody>
</table>

(1) 100 = UNDISCOUNTED, EVERYDAY NORMAL PRICE

SUPERMARKET SALES PERFORMANCE

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SALES SHARE</th>
<th>CHANGE 89 VS. 88</th>
<th>AVERAGE 5 YEAR (compounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- % -</td>
<td>- % -</td>
<td>- % -</td>
</tr>
<tr>
<td>DRY GROCERY</td>
<td>27.66</td>
<td>6.2</td>
<td>4.7</td>
</tr>
<tr>
<td>NON EDIBLES</td>
<td>12.45</td>
<td>5.8</td>
<td>4.1</td>
</tr>
<tr>
<td>GEN. MERCHANDISE</td>
<td>4.2</td>
<td>3.9</td>
<td>4.0</td>
</tr>
<tr>
<td>HBA</td>
<td>4.0</td>
<td>5.0</td>
<td>6.4</td>
</tr>
<tr>
<td>UNCLASSIFIED</td>
<td>2.5</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>PERISHABLES</td>
<td>49.3</td>
<td>7.0</td>
<td>5.6</td>
</tr>
<tr>
<td>TOTALS</td>
<td>100</td>
<td>7.2</td>
<td>5.2</td>
</tr>
<tr>
<td>DAIRY</td>
<td>7.8</td>
<td>5.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>
### CATEGORY GROWTH, 1989

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>1988-89 % CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deli</td>
<td>+12.80%</td>
</tr>
<tr>
<td>In-store bakery</td>
<td>+11.50%</td>
</tr>
<tr>
<td>Produce</td>
<td>+8.15%</td>
</tr>
<tr>
<td>Meat</td>
<td>+7.20%</td>
</tr>
<tr>
<td><strong>Total Supermarket</strong></td>
<td><strong>+7.16%</strong></td>
</tr>
<tr>
<td>Florals</td>
<td></td>
</tr>
<tr>
<td>Bakery foods, packaged</td>
<td>+6.84%</td>
</tr>
<tr>
<td>Dairy</td>
<td>+5.03%</td>
</tr>
<tr>
<td>Frozen foods</td>
<td>+4.50%</td>
</tr>
<tr>
<td>Ice cream</td>
<td>+1.20%</td>
</tr>
</tbody>
</table>

### DAIRY CATEGORY SHARE BY PRODUCT, 1989

<table>
<thead>
<tr>
<th>DAIRY PRODUCTS:</th>
<th>Supermarket Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1989 volume</td>
</tr>
<tr>
<td></td>
<td>($ millions)</td>
</tr>
<tr>
<td>Butter</td>
<td>$1,011.81</td>
</tr>
<tr>
<td>Cheese</td>
<td>4,001.28</td>
</tr>
<tr>
<td>Cottage cheese</td>
<td>685.52</td>
</tr>
<tr>
<td>Eggs</td>
<td>2,047.23</td>
</tr>
<tr>
<td>Fish and fish snacks</td>
<td>136.47</td>
</tr>
<tr>
<td>Fluid milk products</td>
<td>6,230.32</td>
</tr>
<tr>
<td>Margarine</td>
<td>1,262.28</td>
</tr>
<tr>
<td>Party snacks</td>
<td>410.29</td>
</tr>
<tr>
<td>Pizza</td>
<td>45.13</td>
</tr>
<tr>
<td>Refrigerated dough products</td>
<td>620.90</td>
</tr>
<tr>
<td>Refrigerated juices and drinks</td>
<td>1,938.21</td>
</tr>
<tr>
<td>Refrigerated salads</td>
<td>11.43</td>
</tr>
<tr>
<td>Toppings</td>
<td>71.24</td>
</tr>
<tr>
<td>Yeast</td>
<td>23.78</td>
</tr>
<tr>
<td>Yogurt</td>
<td>1,251.24</td>
</tr>
<tr>
<td>All other dairy case items</td>
<td>376.96</td>
</tr>
<tr>
<td>Category Total</td>
<td><strong>$20,126.08</strong></td>
</tr>
</tbody>
</table>

### Supermarket Margins, 1989

<table>
<thead>
<tr>
<th>Category</th>
<th>Margin %</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Merchandise</td>
<td>31.10</td>
</tr>
<tr>
<td>Health and Beauty Care</td>
<td>26.20</td>
</tr>
<tr>
<td>Perishable</td>
<td>25.20</td>
</tr>
<tr>
<td><strong>Dairy</strong></td>
<td><strong>21.40</strong></td>
</tr>
<tr>
<td>Dry Grocery</td>
<td>20.10</td>
</tr>
<tr>
<td>Unclassified</td>
<td>18.60</td>
</tr>
<tr>
<td>Non-Edible</td>
<td>17.30</td>
</tr>
<tr>
<td>Store Average</td>
<td>22.84</td>
</tr>
</tbody>
</table>
DEPARTMENT PERFORMANCE

DPP $/Square Foot*

Dairy $11.19
Frozen $4.82
GM/HBC $2.62
Grocery $2.32

*DPP $/square foot is calculated without store occupancy direct product costs. See "DPP Measurements—Understanding Their Uses," published by the Food Marketing Institute.

DAIRY CATEGORY PERFORMANCE

DPP $/Square Foot*

Butter $18.52
Sour Cream $17.11
Milk $16.46
Cottage Cheese $16.46
Cream $15.42
Cheese $14.18
Eggs $11.63
Juice $8.66
Yogurt $8.38
Misc. $7.40
Dough $7.01
Margarine $5.86
Dips $3.52

Milk-Based Products
Non Milk-Based Products

*DPP $/Square-foot is calculated without store occupancy direct product costs. See "DPP Measurements—Understanding Their Uses," published by the Food Marketing Institute.
There are a number of things that are significant here, some of which Bob Hall has already discussed but they warrant repeating. There are degrees of volatility and the factors that came together during the period 1988-1990 made for a degree of volatility that has not been experienced over the last four decades, if ever. (See Figure 2.) I can't believe, by any stretch of the imagination, given the present price support level and market orientation, that we're not going to continue to have greater volatility than we've been used to in the dairy industry. However, the sequence of events that came together over the last three years, bringing us this very extreme volatility, was unique, and I wouldn't expect to experience this on a regular basis in the future.

The other area that we've been talking about is the highly competitive dairy markets we've experienced recently. I want to make a few comments relative to those. What has impacted those markets? (See Figure 3.) Well certainly, as someone has already indicated

Figure 2
M-W Price vs Support Price
$/cwt@3.5% bf

-60-
2. Highly competitive dairy markets.
Affected by:

- Supply-demand uncertainties
- Relatively tight markets but driven by sharp temporary swings
- Shifting production areas due to urban sprawl, technology adoption, etc.
- Shifting producers - handler to handler looking for best deal
- Excess plant capacity
- Deregulation in NYS - out of state competition
- Foreign investment - maintained markets both fluid and manufacturing

there were supply and demand uncertainties, and increased risk, which in and of themselves are going to cause volatility. We've had relatively tight markets driven by sharp temporary swings in supply and demand. We've experienced shifting production in some areas due to urban sprawl during the early part of 1988 while the Northeast economy was still strong. Then, of course, there is technology adoption, which keeps pushing production per cow higher, although not equally in all states or regions. A number of factors are relevant in this area of shifting production patterns. This has been particularly evident in the Pennsylvania, New York and New England portions of the Northeast, where we've had some very dramatic shifts. And these changes in production areas will continue. It has caused a highly competitive area to be centralized in Central & Western New York, near the major arterials, I88 and the Thruway. As production has declined in New England's historic supply areas, New England processors have come into the Central New York area looking for additional milk supplies which had been the traditional realm of New York fluid handlers. Manufacturing interests have also looked for more milk as cheese demand has grown. As I mentioned, much of this competition has been centralized in the Mohawk Valley of Central New York and more recently in the Fingerlakes area. This map shows (see Figure 4) Pennsylvania as having significantly increased production through 1988 but in 1989-1990, Pennsylvania was affected rather severely by the drought and their supplies were down. This decline in supply and shifting of supply areas has been a key factor in the competitive environment that exists in the northeast.

Another important competitive factor has been the shifting of producers between handlers. This was brought about mainly by the persistent volatility and competitiveness in the market. We've had many producers and small bargaining groups shifting from
handler to handler looking for the best deal. This whole situation was aggravated further by increasing levels of premiums during the very tight market conditions that existed in the last half of 1989. Premium levels reflect short-run market conditions, not the longer term environment.

In addition, we've had excess plant capacity in the market, both at the fluid level and at the manufacturing level. When milk plants operate significantly below capacity, unit costs increase. Thus, excess plant capacity can play a major role in stimulating plant demand irrespective of overall market supply and demand.

Deregulation in New York State has brought in out of state competition, particularly in Western New York and New York City Metro Area that we haven't had before.

We've had considerable foreign investment in the industry in recent years. I don't mean to indicate, in any way, that this has been bad, in fact, I believe it has been good. However, it has also maintained markets that might otherwise not have been there, and to that degree it has contributed to the competitive market conditions in this region.
Figures 5 and 6 illustrate the density of milk plants in the Northeast and the resulting competition due to excess plant capacity. The first slide shows the approximate location of fluid processing plants and the second of manufacturing plants. By superimposing one on the other, one can visualize the degree of competition that must exist within the northeast when supplies are short.

Figure 5

City Locations for Fluid Milk Processing Operations in the Northeast
Strengthened Producer Bargaining Position (Figure 7)

We’ve experienced a strengthened producer bargaining position as a result of tight markets. Over-order premiums, both marketwide premiums in the form of RCMA and MACMA, and State level premiums, as in Pennsylvania (PMMB), Massachusetts, Vermont: all these states have implemented some form of over-order pricing during this period of relatively tight markets. We’ve had the formation of small producer-bargaining units. Sometimes in the form of cooperatives, sometimes just as loose knit, ad hoc bargaining units. Some of these have had valid marketing efficiencies to justify receiving premiums, others have depended solely on the competitive market. Most have been able
3. Strengthened producer bargaining position.

Over-Order Premiums
- Market-wide - RCMA; MAC-MA
- State level - PMMB; MASS; VT

Formation of small producer bargaining units -
- Co-ops and independent

Individual Producer Premiums
- Competitive
- Volume
- Seasonal
- Quality - component
- Hauling subsidies, etc.

to capitalize on the pressure of the competitive market conditions and to some extent, quite frankly, have fragmented the market even further, and that’s something that we still need to deal with.

We have individual producer premiums in many forms. Competitive, volume, seasonal, quality, hauling subsidies, and we can go on and on about the types of premiums that were offered. Many of these would appear to be for specific marketing improvements, but were actually competitive in nature. Quite frankly, given the generic nature of fluid markets, when a fluid processor, pays a quality premium, it has to be assumed to be a competitive premium. Granted, he may want to maintain the overall quality of his supply, but you and I know that it’s very difficult for him to get that additional cost out of the market as a higher quality product.

Let’s briefly look at the cooperative side of the industry here in the northeast. (See Figure 8.) I think that this probably illustrates, at least to some degree, where we are. At the national level, Cooperatives that did not physically handle milk during the period 1980 to 1987 increased by 10%, from 34% to 44%. Sixty percent of those cooperatives were in the Middle Atlantic region, the region that includes New York and Pennsylvania. There were 92 dairy cooperatives in New York and Pennsylvania at that time which represent a third of all the dairy cooperatives in the United States. If you include the West-North Central Region, the East-North Central Region and the Middle Atlantic Region, (see Figure 8) you would include 81% of all the dairy cooperatives in the United States, that are producing about 60% of the milk volume. The point that I’m making is that the fractionalization that
exists within the Northeast dairy industry and particularly within the two state area of New York and Pennsylvania, is not conducive to improving the industry's performance. That's all I'm going to say concerning this topic.

Along with volatility and competition, we've recently heard a great deal of discussion about farm to retail price spreads and profitability or the lack of it. There has been considerable finger pointing going on. It seems to me that this isn't in the best interest of the industry. There's no doubt that the spread has increased, and not necessarily in an equitable manner. I want to spend a few minutes looking at what that spread is and what it entails.

Marketing costs make up the Marketing Bill. The spread that we are looking at is known as the marketing margin. The marketing margin or difference between the cost at the farm and the price to the consumer is what's available to cover those marketing costs and possibly provide a profit, if there is anything left after all costs are covered. These are the costs that are incurred in providing the necessary assembly, processing, and services that make the raw product desirable and available at the consumer level. Without the marketing function, and I think that this is very important for us to remember, there would be no returns coming back to the producer. Producers often take marketing for granted or
forget that the marketing function is a necessary adjunct to producing milk. That without the processors and retailers out there moving the product to the consumer, the money isn’t going to come back to pay for the milk. Thus, producers can’t separate themselves from marketing or its costs and if returns are not adequate in the marketing sector, marketers will leave the industry and the marketing function falls back on producers. At times when producer cooperatives have had to undertake that function, they haven’t always proven successful at it. So, it seems to me, that we need to consider, long and hard, whether we want to undermine the profitability of these operations at the processing, the wholesaling, and retailing level. We need profitable operations at all levels.

Where are the major cost centers? (See Figure 9.) Starting at the farm, you’ve got assembly and transportation or over the road hauling, the movement of milk from the country to the city in the case of fluid processing or to a nearby cheese or balancing plant in the case of manufacturing operations. Then in the case of fluid operations there is distribution from the milk plant to the retail outlets, wholesaling, the sale of the product from processor to retailer, and we shouldn’t forget storage in the case of manufactured products. All of these have costs attributable to them. All of them add value to the product in some way.

<table>
<thead>
<tr>
<th>Major Cost Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm assembly</td>
</tr>
<tr>
<td>Over-the-road hauling</td>
</tr>
<tr>
<td>Fluid processing – manufacturing: storage</td>
</tr>
<tr>
<td>Distribution</td>
</tr>
<tr>
<td>Wholesaling</td>
</tr>
<tr>
<td>Retailing</td>
</tr>
</tbody>
</table>

Nature of these costs -
Significant proportion of these costs are fixed - they do not vary with:
1. Amount of milk
2. Number of miles driven
3. Number of customers served

Capacity utilization rate and seasonal volume variation strongly affect plant processing cost.
In general, average cost is lowest when volume is at or near the plant capacity. (70-80%) 
Average cost rose when plant volume fell below capacity. (50%)
margin is between the middle and the top line. This chart shows, graphically, that processor margins have stayed relatively constant. They’ve gone up a little as we get into 1991, but it’s at the retail level that margins have widened the most. And that’s a fact which shouldn’t be taken as pointing a finger. As has been pointed out, having a profitable dairy case isn’t necessarily bad for the industry. We can ask what constitutes an excessive margin?

Of course, margins are just one part of the picture. What about the factors effecting fluid costs? (See Figure 11.) Well, by way of a quick review, this list was presented by Dr. Dick Aplin at a recent conference in Syracuse. They include: Buying the raw product right—which means not paying more than the competition. Economies of scale—think in terms of 80,000 to 100,000 gallons of milk per day to keep those costs down. Product mix: how many products? How do they affect labor productivity? The percent utilization of plant capacity. Packaging and case costs. Labor costs. When asking what is a good level of labor productivity, it makes a difference whether we’re talking about a specialized plant or diversified plant and the volumes involved. What we’re generally looking at in terms of pounds per man hour, is about 1500 to 2500 pounds per man hour at the upper levels for a diversified plant. Probably in the neighborhood of 1,000 to 2,000 pounds in a more typical situation. Twelve hundred pounds per man hour, I think, is still considered an industry standard, but as you can see we should be raising our sights. Utility costs and product losses are, obviously, important factors that influence fluid costs.

<p>| Figure 11 |</p>
<table>
<thead>
<tr>
<th>Factors Affecting Fluid Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Buying raw product right</td>
</tr>
<tr>
<td>• Economies of scale — need 80,000 to 100,000 gallons per day</td>
</tr>
<tr>
<td>• Product mix</td>
</tr>
<tr>
<td>• Utilization of plant capacity</td>
</tr>
<tr>
<td>• Packaging and case costs</td>
</tr>
<tr>
<td>• Labor costs — What is good level of labor productivity?</td>
</tr>
<tr>
<td>Specialized plant 275-325 gallon/manhour with 110,000 gallons/day</td>
</tr>
<tr>
<td>Diversified plant 175-225 gallons/manhour</td>
</tr>
<tr>
<td>• Utility costs — electricity, fuel, water</td>
</tr>
<tr>
<td>• Product losses</td>
</tr>
<tr>
<td>On-farm — 0.25%</td>
</tr>
<tr>
<td>In-plant — 0.5% - 0.7%</td>
</tr>
<tr>
<td>Returns/dumps — 0.5% - 1.0%</td>
</tr>
</tbody>
</table>

The nature of these costs. A significant portion of these costs are fixed. They do not vary with the amount of milk, the number of miles driven in the case of farm assembly or over the road hauling or with the number of customers served, as in the case of distribution. The fixed nature of these costs is a very important consideration, particularly when we look at the area of excess plant capacity. The capacity utilization rate, and seasonal volume variations greatly effect a plants processing cost. This represents a major cost factor to the degree that if you can’t operate a plant, or for that matter, a bulk milk truck, at least at 70% to 80% of capacity, operating costs are going to rise. Operating costs are going to be significantly higher if you fall into the area of 50% to 60% of capacity. For many of our Northeast manufacturing operations, that has been and continues to be a problem.

Do retail and farm prices move in unison? Generally they do, but not always. They may lag, both up and down, because of the competitive conditions that Ed talked about, but by and large you do get movement although it may take a little time (see Figure 10). I borrowed this chart from Cliff Carman. It gives you some indication of what has happened to producer and retail price margins and also the wholesale margins of fluid milk operations. Producer price is indicated by the lowest line with the small squares, the processor-distributor margin is between the bottom and the middle line, and the retailing
These are some ballpark estimates of processing, distribution and retailing costs at the supermarket and processor level. (See Figure 12.) These costs were developed by the Division of Dairy Industry Services, I believe Dick Aplin presented them at the recent Syracuse conference. They provide us with some insights into the average levels of costs that we’re talking about. How do they compare when we put them in the perspective of margins? (See Figure 13.) In July of 1990, the farm milk price amounted to $1.43 per gallon or 55% of the full retail to farm price spread. The average retail price was $2.62 per gallon plastic at that time. Sixty-four cents was the dealer margin, and 55¢ was the retail margin. In other words, 45% of the total margin was represented by processor-distributor and retailer margins. The processor margin has widened a little bit when we get into December 1990, from 64¢ to 75¢, but retailer margins continued to be considerably greater than in previous years, particularly since 1988.

The retail price of milk at upstate markets tend to be a little bit lower than in the New York City. I do want to make an observation relative to that $2.62 per gallon store price that is derived from a monthly store survey made by the state. That survey does not include special coupon discounts that the supermarkets are giving. In other words, the week to week types of coupon specials that are fairly common may not be included in the survey. My feeling is that the $2.62 per gallon average reported price in the metropolitan area probably tends to overstate the retail price situation to some degree. And to that extent probably overstates profitability at the retail level.
Figure 13
Retail Prices, Raw Milk Cost, Dealer & Retailer Margin, Supermarkets, Plastic Gallon of Milk, 1985-1990
Metro New York

Source: Division of Dairy Industry Services, New York State Department of Agriculture and Markets
What are some keys to controlling the costs. Management attention is first and foremost. That's what we've been mostly talking about this afternoon, when you're in this volatile, competitive market situation. People or employee relationships; maintenance of trucks and plants; also having some necessary benchmarks and measures of good performance. These are the types of things that were presented earlier today. Among the factors affecting distribution costs are the cooler and loadout. The cooler and loadout is where some of the most productive changes have been made recently through increases in labor productivity. Efficient warehouse distribution; planning routes for good work content; and productive load factors are essential in reducing distribution costs. Somebody mentioned the importance of using some of the new technology, especially computer technology. We're getting into that now, in terms of planning distribution routes and for that matter even assembly routes out in the country. Good management of the fleet includes organizing routes and productive use of trucks. Milk composition and quality are always highly important factors in having good keeping quality and taste. The things that make for steady customers.

What are some major needs that we should be addressing? They include: useful partnerships with suppliers; useful partnerships with customers; and useful partnerships with plant and sales people. I think the most important aspect of all that I'd like to leave with you today is that rather than beating each other over the head, pointing fingers about who's making the money and who isn't making the money, we need to be talking about joint ventures—partnerships that will improve the overall productivity and profitability of our industry. This is a joint venture from production to retailing, or to the consumer, if you will. If we don't start looking at ourselves as one industry all trying to do a job together, I'm afraid we're going to find ourselves in trouble. I'm going to skip over some of the manufacturing cost data, which Bob Hall covered very adequately. But the long term conclusions, and the implications of those conclusions are that market volatility is going to continue—probably not to the extremes that we've experienced recently—but given the present level of support price and the possibility that there won't be a support price at some time in the future, we're probably going to continue to see markets fluctuate over a wider range than we have been accustomed to. The production sector is going to continue to adjust, with fewer but larger farms. Possibly at a faster rate, if we fail to take advantage of new technology or make some of the adjustments that we talked about earlier. We are going to continue to lose farms in the northeast and in other parts of the country over the next few years. Some states may not have any dairy to speak of. The market system is dynamic, it also will continue to adjust, with fewer plants and larger plants that are more centrally located. Fluid and manufacturing markets will continue to be competitive even though we sometimes hear concerns that there won't be enough handlers to provide adequate competition in the industry. And finally, in conclusion, I believe the northeast dairy industry's long-term viability is going to be dependent on how well the producers, the processors and the retailers can work together in achieving a vital and profitable industry for all involved.
Let me begin by giving you an overview of consumer trends. What we’re told from our trade organization and then give you some information on what we’re hearing from our consumers independently.

At the start of the 1980’s the overriding theme was economics. The consumers were struggling to balance their budget while faced with the mounting pressure of inflation, energy shortage and time constraints. It appears that we’re entering the 1990’s in much the same way. Nutrition, however, product safety and convenience have also become important to consumers. In a recent study conducted by Opinion Resource Corporation for the Food Marketing Institute and the Trade Organization of Supermarkets, the majority of shoppers interviewed identified taste, nutrition and product safety as very important when they purchase food. Price was also deemed very important by 2 out of 3 shoppers. Nearly two-thirds of those interviewed believe that their diet could be somewhat healthier; I think that we can all agree to that. Those who feel that their diets could stand some improvement, however, include more working women than men, or non working women; shoppers with children as opposed to those without; and shoppers ages 18 to 24 followed by those 25 to 49. To insure a healthy diet nearly 3 out of 5 shoppers report eating more fruits and vegetables. A significant number have also reduced their meat and red meat intake and are using less fats and oils. Many also report they are eating more chicken and fish, more fiber and less sugar, sodium and cholesterol.

The role of nutrition in food selection varies among shoppers sub-groups, however. Again, more women than men view nutrition as very important. I think that’s because women generally are the ones that shop. Older shoppers are more likely to consider nutrition very important than younger shoppers, not totally surprising. A larger proportion of those aged 50 to 64 view nutrition very important than age 18 to 49. Interestingly enough, however, the 18 to 49 group were the one’s that realized that their diet needed improvement. However, they don’t view nutrition as very important: strange! However, nearly all shoppers, with a household member on a medically restricted diet view nutrition as very important compared to fewer than 3 out of 4 in households without such restrictions.

In terms of nutritional content of diet, 9 out of 10 shoppers pay at least some attention to nutritional content and about one-half pay a great deal of attention, I think that number has significantly increased over the years. A few years ago if we had asked that question we wouldn’t have had nearly the response. Again, different sub-groups vary in the attention they give to nutritional content. Women are more likely than men to pay a great deal of attention to the nutritional content in the food that they eat. Shoppers from households without children are more likely than those with children, to pay attention to nutritional information. I think that
is probably because women with children are generally on the go a little more and don’t have the time to read the labels like some of us do that are more in tuned to it. Shoppers over fifty, however, are more likely to be nutrition conscious than those under forty. Attention to nutrition also increases as household income increases, and that certainly isn’t surprising. Shoppers from households with incomes over $35,000 are more likely than those with incomes of $15,000 or less, to have nutrition awareness.

Shoppers with any concern about nutrition focus mostly on the fat content of food. This represents a change since last year when cholesterol was deemed as most important. The percentage of shoppers concerned about fat has increased significantly since 1989 and it’s just ahead of cholesterol as the primary nutritional concern. The concern over fat is consistent with the finding that many shoppers are paying attention to the fat content, and that many are lowering their fat intake to insure a healthier diet.

Shoppers are also asked how often they read food labels for information on ingredients and nutrition and how often they check labels for expiration dates. About 3 in 4 shoppers always check food labels for the expiration date. About half as many read labels for either the ingredient or nutritional information. Fewer than 1 out of 5 shoppers rarely check labels for ingredient or nutritional information. Again, a few years back, I wonder how many people really did check food labels, ingredient information or expiration dates. People are definitely a little bit more in tuned.

The reading of labels for ingredient or nutritional information is more prevalent for first time food purchases than for product purchases in general. The proportion of shoppers who are most likely to read these types of information are consistent with those who pay attention to nutritional content in food. However, there are a few additional groups, such as nonworking women who are more likely than either working women or men who always say they read the list of ingredients. Shoppers that are 65 years of age or older are least likely to read labels for expiration dates. And I think that’s basically because it’s generally a little bit more difficult for them to read or to see. Shoppers from the Mid-West are less likely than others to read labels for either ingredient or nutritional information. And those from the south are most likely to check expiration dates. I found that interesting! Shoppers who consider their diets healthy enough are far more likely than others to read labels for both ingredient and nutritional information and somewhat more likely to read labels for expiration dates.

Now, for the issue of food safety. After the 1989 Food Market Institute Research Study, considerable publicity was given to the use of chemicals, Alar in apples, and the tampering incident involving Chilean grapes. Following the Alar and grapes incidents, consumer confidence naturally dropped considerably. In the recent FMI Research Study which I just detailed, more than 3 out of 5 shoppers were confident that their food is safe, while 1 in 5 expressed some doubt. Those who have complete confidence in food safety has dropped significantly since 1989, and I don’t think that anyone would really be surprised by that. Nonworking women are more likely to have complete confidence in the safety of their food. More shoppers age 18 to 24 and those age 65 and older are completely confident than those of 25 to 64. And those who describe their diet as relatively healthy feel that their food is completely safe.
Food safety concerns include spoilage and germs, pesticides and residues, to improper packaging and canning, chemicals and tampering. The study probed attitudes toward specific items they say may be perceived as health hazards. Residues and pesticides are perceived by far, as the most serious hazards. Followed by antibiotics and hormones that may be used in poultry and livestock production. However, fewer shoppers in 1990 than in 1989 rate antibiotics and hormones as serious, I think that is somewhat encouraging. When shopping for food, 9 and 10 shoppers rated safety as somewhat or vary important factor. Again, women more so than men, shoppers 50 or over, and those with no college as opposed to those with only some college experience. Although shoppers still consider themselves primarily responsible for insuring that their food is safe, they are also relying more on government and manufacturers. Shoppers would also like to see government establish standards for manufacturers and tougher guidelines for the use of pesticides and hormones. When asked what they, as shoppers, do at home to make sure of food safety, 6 out of 10 rely on proper refrigeration. Other safety precautions taken include proper storage, checking expiration dates, washing and cleaning foods properly, cooking properly and wrapping food properly.

Those are the supermarket trends as a whole as reported to retailers in general. But, what are we specifically hearing from our consumers? Believe me, we hear a lot! In 1987, due to an increasing number of food related calls, we implemented our Cooks Hotline. Cooks, which is an acronym for Call on our kitchen specialists, is a toll free number consumers can call with any concerns with food related questions, whether it be preparation, whether it be safety or nutrition. The hotline operates 7 days a week with the exception of the summer months. We average about 1200 calls a month. So as I said, we hear a lot from our consumers. Some of our most frequently asked dairy questions include:

- Is it okay to freeze milk?
- What can I substitute for butter milk?
- I left my milk out, is it safe to drink?
- Why did my milk spoil before the expiration date?
- How do you sour milk?
- Can evaporated milk be substituted for sweetened condensed milk?
- How can I make whipped cream using nonfat dry milk? People will do anything to cut out fat in their diet!
- What's the difference between whole milk, lowfat and skim milk?
- Can lowfat yogurt or cottage cheese be substituted for sour cream to reduce the recipe's fat content?
- Can cheeses be frozen?
- What low or no-salt cheese's are available?
- Are there hard cheeses on the market that are fat-free?
- What's the fat and cholesterol content of cheddar, swiss, etc.?

We are definitely seeing a strong interest in lowfat and nonfat dairy products. People are definitely trying to get away from whole milk dairy products. This supports FMI's findings that shoppers concerned about nutrition focus on the fat content in foods. We address consumer's overall needs for nutritional information by implementing our Eat-wise Health-wise Nutrition Program last year. This program was designed to help consumers make healthy food choices at the point of purchase. Choosing what foods to buy can often be very difficult and confusing.
for consumers. They’re bombarded with a lot of mixed messages on the market. The Eat-wise Health-wise Nutrition Program offers monthly nutrition tours conducted by a registered dietitian or a certified home economist. Those who register for the tours receive comprehensive information on reading labels; reducing fat, sodium, cholesterol, sodium and increasing fiber in their diets. The program is undergoing some revisions and the new format will be introduced within the next several months. However, consumers will still have the opportunity to receive the necessary information to make important nutrition choices. Anyone shopping at Price Chopper’s stores may also pick up a copy of Eat-wise Health-wise Nutrition brochure. We give you the facts in black and white. The brochure details the Eat-wise Health-wise Program, the importance of reading nutrition labels, definitions and guidelines for terms concerning calories, sodium, fat and cholesterol, as well as guidelines for checking nutritional labels. What, for instance, does lowfat mean to a customer that picks up a carton of lowfat yogurt? Most people don’t even know what lowfat means in general, so we supply these guidelines.

Another component of the program is instore signs that hang throughout the store. These helpful signs give nutritional benefits about the food consumers purchase. The dairy products sign, for instance, reads: “Good source of calcium, protein, vitamins A and D. To limit cholesterol and fat intake choose lowfat or nonfat dairy products.” We also provide nutrition and food preparation materials to the in-store consumer information centers in our stores, and in our weekly ads, whenever possible. We frequently request and receive in-store display materials from the National Dairy Board. Something that will certainly be of interest to all of you this morning, in terms of food safety, we have never, to my knowledge, received a phone call from a consumer on BST. Now, to me, I find that encouraging, particularly because it is occasionally hit upon in the media. And I think it’s encouraging particularly since I recall that many consumers do perceive hormones as a food safety hazard. So, it’s nice that they’re not calling, perhaps it’s not perceived as detrimental as we all may think. At present it hasn’t become an issue for us. Our suppliers aren’t using any test for this, or at least that’s what we’ve been told. Whether widespread BST use will reduce milk consumption is certainly a concern for all of us. Public education efforts like those that have been taken by the Animal Health Institute will certainly help. If and when BST does become a consumer issue, we feel that we are well informed. Companies producing BST and the Animal Health Institute are constantly updating us with materials. Several of us also attended the Biotechnology conferences sponsored by such companies. From the number of calls we receive, we also know the consumers, or our customers, are loyal to their local dairies. However, that same loyalty is not carried over by New Yorker’s in terms of purchasing “made in New York” products. Vermonter’s, on the other hand, are very loyal to their producers. And are eager to support their state’s economy and their businesses. I think that’s a really interesting difference between the two states’ residences. Perhaps that’s why New York is in so much trouble right now.

Basically I’ve just touched upon some of the consumer trends that we’ve heard and that we’re hearing independently from our own customers. I’ve just given you an overview that I thought might be of interest to you, especially BST. We thought when we were first receiving materials on BST, oh no, we’re going to be bombarded with consumer calls. And I find it fascinating that we haven’t received one. And, as I’ve said, we hear from our customers regarding any type of complaint. So I’m suggesting that I find that really encouraging.
Dairy Product Safety Concerns—Producer Response

John Adams, National Milk Producers Federation

I had an inspiration for a movie on the dairy industry. It’s called “Dancing with Antibiotics.” Maybe we can hire Kevin Costner to do the plight of the dairy farmer, since he did so well with the plight of the Native American Indians. I think that maybe we should hire him to do a movie on the plight of the American dairy farmer at the present time.

I want to talk to you about opportunities and challenges in the marketplace as it pertains to milk safety, this morning. I was thinking, last night when watching the Oscar’s, they went back 100 years in history to movie production in America. And I was thinking back to 1891 when the milk fluid industry got started here in New York. It was the first major move toward fluid marketing in the New York market and we immediately encountered major public health problems with some traditional diseases such as brucellosis and tuberculosis. Those are two that we’re still wrestling with this very day. But we’ve come a long way since that time, and today we have become much more sophisticated in terms of our concerns. Also we are more sophisticated in terms of our ability to test. More sophisticated in our ability to control and use technology to determine our destiny in the marketplace.

Of course, the previous speaker highlighted for you some of the consumer concerns, but I think the thing that bothers most of us who are looking ahead for the dairy farmers and coops of this country, we’re concerned that consumers are becoming food conscious and more aware of production practices. And this is singled out mainly by the animal welfare and animal rights movements throughout the world. And we see those movements gaining prestige and gaining focus here in the United States, and certainly they’re beginning to hone in more on the commodity area, such as dairy. And they’re beginning to question our production practices. And, so, I think this leads into a concern we have when we look at what is happening. The animal rights people have begun to destroy the veal industry in the United States as we know it. They have suffered loss of market. And this is the kind of attack that we, in the dairy industry, must be concerned about for the future. And what are they harping on? They’re harping on improper use of chemicals, and mainly animal drugs.

We’ve seen adverse publicity in the Wall Street Journal, Sixty Minutes, The Chicago Tribune, repeatedly attacking the veal industry. And as you know, the dairy industry has undergone some of those kinds of initial attacks with Bruce Ingersol’s infamous publication in the Wall Street Journal in late 1989 and early 1990.

Technology; it can be a friend or it can be a foe. Our challenge in the marketplace is to understand how we can harness technology to our benefit. I want to keep coming back to that. Certainly, in 1987 in California, Stanley Charm presented a paper to the International Food
Sanitarians meeting and he reported for the first time being able to detect sulfamethazine residues in milk. And when we heard that presentation, we realized that a system that we've lived under for many years in the dairy industry with regard to drug use, was under attack. And it was under attack because of new technology, sensitivities far exceeding those that we have experienced in the past. I can remember ten years ago, when we were working on implementing and updating the Grade A pasteurized milk ordinance, and we were talking about introducing the b Stearothermophilus test. Just ten years ago, and we thought that was a great advancement. And in ten years now the b Stearothermophilus test is under attack because of the development of new technology. Amino assay technology, radioamino assay technology, with even more sophisticated technology on the horizon.

And of course, we have a plethora of drugs that are out there available for use by veterinarians, as well as dairymen. But the problem is very simple, most of them are not approved for use in lactating dairy animals. And so we are relegated to a situation in the dairy industry where we are absolutely dependant on these drugs, in many cases for good management practices. And yet we do not have more than five approved drugs that you can use, according to labeling, that a layman could use and inject into an animal. Just five. And so since most of the drugs that are out there are not approved for use, they do not have a withdrawal time, and that means that we are in an "extra-label" drug situation in the dairy industry. And that means they have no milk discard times, if they are a non approved drug, they do not have a tolerance. There is no published tolerance, therefore, no drug withdrawal time. And we come down to the situation that we're facing, farmers ship contaminated milk that is not detected at the milk plant. The GAO report that recently came out said that there are approximately seventy-some drugs that are commonly used in the dairy industry, and we certainly do not have tests for all of them. And so we face a huge dilemma, this dilemma in the past has been overcome somewhat by dilution. It wasn't a problem unless you could detect it. Now we can detect it. A major problem is the difference in sensitivity of the new tests when compared to the tests currently used by the dairy plants. We are talking magnitudes of 100,000ths difference in sensitivity. From the B Subtles test, the B Stearothermophilus test to the radioamino assay tests today we're talking in parts per billion, when ten years ago we were talking in parts per million.

What must we do? The pessimist complains about the wind, the optimist expects it to change, the realist adjusts his sails. I think that we are in the process of adjusting our sails in the dairy industry. I apologize for this, but we're fading out, the milk and dairy beef residue prevention program was devised by a joint effort between the National Milk Producers Federation and the American Veterinary Medical Association in 1988, to deal with this overall issue. It was developed by a joint committee composed of dairymen, technicians, scientists, and veterinarians. Out of this effort, the committee developed some basic philosophies, and that was if we are going to survive, if we are going to have some opportunities in the marketplace in the future, we are going to have to adopt the philosophy of prevention, not treatment. And we're going to have to come to understand that if we are going to continue to be able to utilize these drugs as dairy farmers, we're going to have to develop some responsibility with the veterinarian. There are going to be only two people that can control this situation, and that's the producer and the veterinarian, but most importantly they must be able to work together cooperatively. So the committee came up with a very simple, ten point protocol that they envisioned could be adopted on a quality assurance educational basis. And the first, and of
course, the most obvious one that they insisted upon to be a part of this program was preventative herd health. Because, obviously, if we can reduce our dependency on the drugs, we can not only reduce cost for the dairy farmers, and that is very important at this point in time to reduce our cost on the dairy farm, but we can improve herd health. Then when we improve herd health we can improve the quality and the shelf life of our milk supply. So these are obvious things that we talked about for many, many years in the dairy industry. Now what we have to do is begin to focus them into a quality assurance program at the farm level that we can conduct on a continuing basis. Obviously, we have to use only FDA approved drugs, if a drug is not approved by FDA it is illegal adulterant. And we obviously do not want to be caught in the process of using an illegal substance and contaminating the milk supply. And at this particular control point there are a number of issues. We need to understand the difference between over the counter and RX drugs. We need to understand the extra label use restrictions and why. And we need to determine that all over the counter drugs purchased for the dairy are listed on safe drug use guides, and determine that all RX drugs used through your veterinarian are FDA approved. I would challenge a lot of dairy farmers to be able to answer all of these descriptions under this particular control point at this point in time. I think a lot of dairymen do not understand that unless they can go down to the feed store, the coop, and pull up and buy a product off the shelf and it is labelled for a lactating cow use, if they’re using any other product without the prescription and under the control of a veterinarian, they are violating the federal law. And their liability is very, very, very severe. I think that is something that we have to get across to a lot of our producers. That client patient relationship is the only relationship that will permit you, as the dairy farmer, to utilize these drugs in an extra-label manner. You must be under this relationship. And this relationship doesn’t mean that you call the veterinarian every time that you have a milk fever, or just when you have a milk fever problem. This is a relationship that must be on a continuum. You and your veterinarian should have established a working relationship. An understanding for making clinical judgements regarding the health of your animals and the need for medical treatment. Otherwise, even technically, under the law today, a veterinarian is prohibited from using a drug in an extra-label manner. This is a crutch that the FDA has provided so that we can deal with the problem on a realistic basis. But Congressman Wiess, in his hearings, made it very clear that he understands that the law technically says that it is illegal for any body to use the drug in an extra-label manner.

All drug labels comply with the Grade A milk control labelling requirements. And under this one we have requirements for name and address of veterinarians dispensing the drug. The indications and directions for use, the prescribe withholding time, and any cautionary statements. And, in addition, we have a requirement for the extra-label, for a drug that is prescribed by a veterinarian that label must have the name and address of the veterinarian on there, directions for use, cautionary statements and a prescribed withholding time. So a lot of the drugs that you can go down to the store and purchase off the shelf, those are over the counter drugs that you can use according to the label directions, but the minute the veterinarian takes that same drug and increases the dosage level, doubles or triples the dosage level, he must put this label on that drug. Otherwise, you are going to be debited under the Grade A Pasteurized milk ordinance rule.

All drugs are stored in compliance with Grade A milk control requirement. And that means you must have drugs separated. Lactating cow vs. non-lactating cow use. All drugs are
administered properly and treated cows properly identified. We’ve been working on this for years. We’ve been doing a good job. We’ve come a long way. We still need to make some improvements. There are some dairies that need to have hospital herds. Particularly on the larger dairy herds, they need to be able to segregate treated animals in the hospital herds and keep them isolated and do a better job in that respect. Treatment records that are properly maintained and treated animals accurately identified. Most dairymen do not keep adequate records. Why is this so important today? Because, let me give you an example, if you are using Gentamicin, which is an illegal drug, the withholding time on that drug is somewhere between thirty and sixty days, and that drug will hang up in the kidneys for thirty or sixty days. If you are going to ship that cow or you are going to have any idea that you are going to ship that cow to market during that period of time, you can’t use that drug. That’s why it is really important for a veterinarians to know that when he comes down to your place, what the history of treatment of that animal is because if that animal has been treated during the last sixty days with Gentamicin, he may not want to use that same drug to treat for an E. Coli infection. It doesn’t have to be very fancy. But it has to be better than a calendar or a paper towel. It has to be a permanent record. Proper drug residue testing capabilities on and off the farm’s - It will no longer be adequate for you to send the milk sample down to the dairy to test for antibiotics. Because they are not going to know what kind of antibiotic to test for. And you may not know what antibiotic to test for if you don’t have this working relationship with you veterinarian. We have now developed in the last five years, we’ve worked with the diagnostic industry and come up with a number of quick, sensitive screening tests that you have the capability to use at cow side. And they are very specific. They are specific for the penicillin group. Or the tetracycline group. Or the sulfa group. Or the Gentamicin group. And if you are using and you are under the prescription of a veterinarian you better be using the right test for Gentamicin. The other ones may be too general, they may not be sensitive enough to pick it up.

Your employees should demonstrate awareness and knowledge of proper drug use and methods to avoid marketing adulterated products. You know that on many dairy farms we have a lot of turn over of help, and unless the help is educated to the importance of these control measure, you are asking for trouble. You are asking for human error. And too many of our incidences in the dairy industry are related to human error. We’ve got to put some quality assurance controls on the farm to reduce the human error. And, obviously, we need to keep this updated on a routine basis because we have new drugs coming out. We have a new tests coming out. And we have new information about farm kinetics of these drugs and the capabilities of these tests. We hope to keep this information stream going. We have to keep it continually updated.

The idea behind this program is very simple. Two people were involved, they sign on the program, they indicate that they are responsible for seeing that this protocol is going to be in effect on that dairy farm.

The goal of the program, of course, is to eliminate animal drug residues in milk, cows and calves. To produce milk and meat that has consumer confidence. And to eliminate media, congressional and regulatory concerns which continue to grow.

The benefits and justification - reduce producer animal drug input costs. Very important at this point in time. Less likelihood of producer and veterinarian liability. Prevention of
violative residues and protection of the wholesomeness of the milk and dairy meat. It is just as important to be concerned about cull cows going to market as it is milk going to market.

We have two target audiences. Dairy producers and veterinarians. But we also are working with drug manufacturers, packers, processors and extension educators. Our target audience is approximately 150,000 dairy farmers and 5,000 veterinarians. All of us involved in the dairy industry need to be aware of the potential devastation that could occur to the dairy marketing system. We can ill afford, at this point in time, to have more violative incidence of residue making headlines. That will eventually undermine our marketplace. It will eventually cause consumers to have second thoughts. That's something that we can not afford or allow to happen. As the previous speaker indicated, so far we have been fortunate. So far we have been very fortunate. We need a fundamental change in attitude. I want to give credit to Dr. David Reid for many of my slides here today. But David is a very good veterinarian in the state of Wisconsin. And that state is undergoing a hemorrhage right now with regard to antibiotic drug related issues. There have been a number of indictments and many people's opinion is that the state is overreacting to their situation. But David has made the statement at a previous National Mastitis meeting that the primary problem facing the dairy industry today is the inability to market a wholesome, uncontaminated product. That's a pretty sharp indictment of an industry. I disagree with that statement. I disagree wholeheartedly. Even though he is a very good friend, and a very responsible veterinarian, I believe that we do have a challenge ahead. But we also have an opportunity. We have an opportunity to utilize new technology with a new concept of putting quality assurance on the farm where we can prevent the problem. And in doing so, we can reduce farmers cost. We can improve herd health. And we can market a safer product. That's not to say we are not marketing a safe product today. I think we have the safest product in the world. But we have to remember that we are dealing with a more sophisticated consumer. And we are dealing with some very offensive challenges from the animal rights and vegetarian movements in this country. And we've got to be prepared to handle that situation in the eyes of the public.

I made this statement in 1988, and I stand by it today. I think that this is one of the greatest challenges facing the dairy industry. And in a couple of weeks we will be going to Louisville, Kentucky to deal with this issue in front of fifty state regulatory agencies, and the american public. And I hope and pray that the dairy industry and the state regulatory bodies that represent this industry around the country can come together and agree on some basic principals. And agree on some basic courses of direction to solve this problem. I think they boil down to four or five areas. And these are recommendations that have come forward out of a special study committee appointed by Al Place, who is the chairman of the National Farm Conference on Industrial Milk Shipments. The first one has to do with the ability to be able to identify the active ingredient in the drug, on the label. Right now our labelling requirements do not require the active ingredient to be identified. Why is that important? Because without knowing what the active ingredient is it is going to be very difficult to know what test to use to screen for that drug. The second recommendation has to do with being able to monitor the milk supply on a routine basis. And this is what is causing a hemorrhage right now in Wisconsin. Wisconsin is now requiring that ever tanker be tested before it is unloaded. The problem is that you have got to be able to use a quick screening test. And as I said before, we don't have quick screening tests for all this array of drugs. So we are never going to test our way out. We can test our tankers. We can test them for B lactin, and we may be able to randomly
sample for some of the other categories and classes. But the consumers are always going to be able to say to us, “But are you testing for every one of these drugs?” And how do we answer that question? I don’t believe the solution to our problem is testing our way out. I believe the solution is back on the farm, where we can help the dairy farmer deal with this issue. I think the third thing that we can expect, coming out of this is that there is going to be additional follow up and investigation at the farm level to determine what the problem is. I think that there is going to be a mandatory reporting requirement. For industry to report incidence or tests that show positive above a safe level established by FDA. Let me explain that for a minute. Most of our drugs have tolerances that are approved for use. The ones that are not approved for use do not have established tolerances. But yet they are out there being commonly used, so FDA has established safe levels. And I think that what we are going to see is a requirement that industry report any violative positive sample above these sample levels that have been established by FDA. And finally, I think that we are going to see some sort of universal penalty program under the Grade A pasteurized milk ordinance. And I think this is important because we need to bring recognition of the significance of this problem to all dairy farms. And I believe that based upon the recommendations of the National Milk Producers Federation, we can do this under the pasteurized milk ordinance, provided that we treat everyone equally. And I think that is the only way that we are going to be able to have a penalty program that treats everybody equally, or attempts to treat everyone equally.

Those are just some of the things that I think we are going to see. But I think we can expect a lot of scrutiny at this conference. I think we are going to see GAO at this conference. I think that we are going to see the consumer group at this conference. And certainly we are going to have to mill a lot of opinions of industry and regulatory together to come up with a workable program. Our hope is that this program will be available, that we can make this program available on a voluntary basis and that most dairymen and coops will adopt this kind of a program in the future. But I believe that it is also going to be necessary, based upon the recommendations of the National Milk Producers, that this kind of a program become mandatory for those who are found to be in violation. Because they have sent a signal to the marketplace and they have provided the risks to the marketplace that something is wrong. And, therefore, something like this program is going to be necessary to correct or prevent a problem from reoccurring in the future.

Ladies and gentlemen, we have a large challenge ahead of us in the area of food safety. But I am confident that with our abilities and that if we work together and understand the problem and we work to help the dairy farmer and the veterinarians solve the problems, that we can overcome this. And that we will be the beneficiaries of the effort.

Thank you all, very, very much.
Food Quality Perceptions

Dr. Sidney Barnard, The Pennsylvania State University

Thank you very much, Pat. Good morning ladies and gentlemen. It is indeed a pleasure to be here.

Some people on yesterday’s program have given me a fantastic set up. And this morning Miss Murphy also provided some wonderful insights to flavor and quality of dairy products. I couldn’t ask to be set up any better than this.

One of the questions that I have to ask is: Where have we been in the milk industry when it comes to milk containers and their effect on flavor? We’ve let the bleach industry beat us by some ten or twelve years. We now have let the orange juice industry beat us by a year and a half. In the dairy industry we are still using the clear plastic jug. Yes, you can see milk in there, but you can’t see it in the paper container, we haven’t for decades. There are definite challenges. Forty to fifty percent of the milk samples, that we check have what we call an objectionable light induced flavor in the plastic containers. We have checked over 30,000 samples in fewer than 16 years, 12,000 were in the last five years. An orange, white or yellow pigmented container is being used by others. There are seven plants in the country that are using a white or yellow container. It protects flavor, and it protects the loss of two important nutrients.

I’m happy to see my counterpart from Cornell, Dave Bandler, is with us. Dave and I have worked cooperatively on some of these problems for 26 years, trying to find solutions for the dairy industry’s real world problems. We haven’t been back there doing basic research, but out here in the field dealing with the everyday situations, the challenges.

Over the years, I’ve had wonderful support, starting with an organization formerly called Interstate Milk Producers, and today encompassing all of the Coops, the Pennsylvania Dairy Promotion Program, and the Milk Dealers Association Program. We don’t get fantastic sums of money. We don’t need that. I don’t need hundreds of thousands of dollars to work with you on quality programs and to purchase and check and send the results of samples back to you. But we do have sufficient funds to carry on a baseline program. My problem is that the days just don’t last long enough.

We continue to have challenges. Some of these things you’ve heard me say before, but some of you have probably never seen the figures I will toss out in the next few minutes. Consumer acceptance is our key concern. There is no doubt about it. You heard it yesterday. You heard it from Miss Murphy this morning. She stated, “taste is the first
judgement that people make of foods". That certainly applies to dairy products. We also have to be concerned about the safety that John Adams was talking about. But truly, while I am as strong behind promotion as anybody, I am concerned that too many of the dollars that you provide are promoting products that you wouldn't consider acceptable. Dave Bandler and I, or other people who have some training with taste testing are not trying to be super critical, but we are trying to define the conditions that consumers object to. I am aware that fat, calories and cholesterol are a concern, but we've known about those reasons for years. When if we really knew what the situation was regarding the taste and keeping quality of dairy products that consumers purchase in stores, we probably, and hopefully, would have done some things differently in the past.

I don't disagree with anything else that you might want to toss out, as far as the causes of supply and consumption imbalances. But I'll show you some reasons why they exist, and folks, the picture in Pennsylvania is not the worst in the country. We know what that situation is, but we are also buying up enough dairy products in other neighboring states to know that the situations in these other states is considerably worse in some cases. In no case is it better than the situation is in Pennsylvania. You may be aware that we have about 13,500 dairy bars. We've got over 100 dairy processing plants just in the fluid end of things, 43 milk dealers, and about 55 to 60 farmer or distributor operations. This makes for a considerable number of people we have to deal with to try to improve things. Last year we bought 2,041 samples of milk in Pennsylvania that ranged from whole milk to chocolate milk. We found a much better picture as you will see in a moment than it has been in the past. Twenty percent of those samples had objectionable off flavors. YES, one out of five samples. People may drink them, but they aren't going to necessarily like it. Only in very few cases are they going to consider a second helping, a second glass of milk, a second piece of cheese or a second pad of butter. I've spent a lot of time on the fluid milk picture, but I'm trying to put some time on other products from here on. Cottage cheese and yogurt are in relatively good shape. While I have only started keeping results on these in the last two years, it seems that 10% to 20% of the samples do have pronounced flavor defects. Some of these people may get used to, but a strong bitter taste or a pronounced high acid flavor can be really objectionable. In the case of vanilla ice cream, last year, we had samples from 264 half gallons which is a relatively good variety, representing virtually every brand that might be sold any where in Pennsylvania. 27% had objectionable flavors. This doesn't mean that people aren't going to eat them. But, they were not what they should be. If we go to cheddar cheese and butter, and it is only this year that I have really tried to keep track of these, more than 30% of those store samples had a problem.

We continue to have major challenges. Let me specifically mention some of them. Rancid flavor in the dairy industry. You people have done an outstanding job in working on this one. It took a while to convince you of what rancidity was. Some cooperatives have done an outstanding job. Many milk dealers have in correcting the source of the problems. And that is one of the few that does go back to some individual farms.

LIF is the light induced flavor that I mentioned earlier, and I am convinced that the dairy industry, as a whole, does have to go to protective containers. Pennsylvania, now,
has a ten day open dating maximum mandatory for fluid milk. They were strongly considering going to 14 days. I personally went to 42 of the 43 plants in Pennsylvania and found out that those products wouldn’t keep for 14 days. And I think that I had a little influence in backing them off to 12 days. Their own studies and ours showed a higher number than I wish to put up there, of the samples that didn’t taste good and were totally spoiled at the end of 14 days at 45 degrees Fahrenheit. Too many of these stores do have dairy cases up to that 45 degree Fahrenheit level. We do find such things as bitter, unclean, unnatural flavors, high acid in yogurt and cottage cheese. When it comes to ice cream, well, it’s generally old dairy ingredients when we find problems in our ice cream. Simply due to the fact that the milk, the cream, the butter, the condensed, in too many cases has been stored somewhere too long. The other problem which is running very close to it - the use of too much whey powder. We know that whey can substitute for skim milk in ice cream for solids, but add too much, and, to the young people it tastes like a graham cracker with a little bit of a salty taste.

In cheddar cheese, we find everything from fruity to unclean, to the sulfide or rotten egg odor and taste, to moldy, to occasionally rancid cheddar. And butter runs a similar gamut. It is unfortunate that we can buy something like 12 samples and find 7 or 8 defects among those 12 samples. Rancid, again, which is a metallic taste when butter is oxidized. Occasionally a musty sample. The more common is simple old cream. The cream has been held somewhere too long in the raw state, and the matter of overly long or warm storage as far as butter is concerned. Dairy products, regardless of what they are, do not improve with age.

Let me mention, and put some emphasis on the fact, that regulations are not going to improve the flavor situation. Flavor should not be part of regulations. Improving flavor has got to be a voluntary industry-wide effort. A simple quality assurance program, unless it specifically addresses flavor, is not adequate. It can be free of drugs. It can be of excellent bacterial quality and still have objectionable flavors, regardless of the dairy product. We have been very fortunate over the last five years, to receive funding from the Pennsylvania Dairy Promotion Program and the Milk Dealers to operate the sampling and the testing program. We use a form letter that most of the milk dealers and representatives in the room have at sometime seen with a black pen to put in the results and comments.

Our samples are purchased at supermarkets. We test for bacteria count. We taste those samples. The results are all sent to processors. And I can assure you, we do provide suggestions on how to improve a particular problem. I try to send whatever information I can, the telephone is there when I happen to be at the desk. And I will attempt to help anyone that asks for help.

We have had a tremendous working relationship with the Pennsylvania Department of Agriculture. We do conduct considerable training sessions for plant employees, milk haulers, and actually do go into as many plants as we can find the time to do, to provide some individual assistance at whatever the hour of the day or night it might be.

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Just so that you don’t get the idea that things have gotten worse or stayed the same. I want to specifically mention some things that have improved rather dramatically. They are improving every month, and particularly over the last several years. In Pennsylvania today, there are only 7% of the stores that have milk over 45 degrees Fahrenheit. Fifteen years ago the total was between 30% and 35% of the stores. A tremendous improvement. Ninety (90) percent of those milk samples are of excellent bacterial quality. A very positive thing. There is not a safety concern at this level. We no longer find totally spoiled cottage cheese or yogurt. I haven’t seen a sample in quite some time that would have mold on the top, as we used to see 10 or 15 years ago. We simply don’t find it. And if we look at the positive side of ice cream - texture. In commercial ice cream the goal is to get it smooth and only 12% of those vanilla ice cream samples have anything objectionable as far as body and texture is concerned. Whether it is weak, with too much air in it, or whether it is a coarse and icy texture.

And, lastly, I’ll throw a few challenges out to you. You have all very well gathered by this time that the improvement of dairy product flavor requires cooperation. Everybody’s cooperation. It’s just as John Adams was emphasizing with drug residues. It starts with producers and the employees on the farm, with the milk haulers that you employ to transport that milk to receiving and processing plants, the employees in plants, people distributing to stores, store personnel, and certainly, last, but not least the government and institutional folks who deal with these problems on a day to day basis. I’m very appreciative of the support this program has at the University. Simply the availability of the university laboratory that I have used for all of my years at Penn State, to test the samples. We use it cooperatively with other people. It provides an opportunity for undergraduate students, five of them, that are working a few hours a week to learn how to do the tests, to learn how to taste test. But, again, it does take a cooperative effort there when we get in, as we did last Thursday evening, 71 samples of milk product to process by Friday evening.

It has been my pleasure to have been here and talk with you. I throw some challenges out. I am very sincere and have been for years, in trying with the least publicity possible, to get this information across so that we can take some positive action, so that we have dairy products out there with a higher probability of being acceptable to consumers.

It’s been my pleasure to be here. Thank you very much for permitting me to share my thoughts with you.
I'd like to do two things this morning. I'd like to talk to you a little bit early on, philosophically about our research approach at the National Dairy Institute. And then I'd like to introduce you to that research program. We'll talk again, philosophically, about how we put together the programs that are sponsored by the National Dairy Board, for you, the dairy farmers of America.

Let me begin with a few introductory comments which may provide a philosophical background to the total research program at the National Dairy Board. The first comment I would make to you is talking about consumers. You'll hear an awful lot of discussion focusing on consumers. The first observational comment that I would make to you is, "Am I thinking that consumer need actually drives the market price?" Having proof from one of the largest consumer products companies in the world, the Kraft General Foods Organization, which is part of Philip Morris, I can assure you that it certainly is the focus in that particular organization. I could cite many examples of new technologies and products that were developed that while they delivered a consumer benefit, were not recognized by consumers recognized as a need. As a result, many of those products do not exist in the marketplace today.

Mike Miles, who is the CEO of Kraft General Foods, in discussing the strategy at Kraft General Foods, concerning new product development, stated that the first consideration is making products that consumers want, rather than those products you find easy to make. Again, it's a reorientation in thinking about how you direct your research efforts.

A recent study done by a group called the International Food Ingredients Association, in cooperation with the American Dietetics Association, which looks at the kinds of changes folks were making in their diets, found a lengthy list of changes that folks were making in their diets. Certain ingredients or foods are being eliminated, while others are being added to the diet. And again, not all of these individual decisions have a strong scientific basis, but the point is that consumers believe that these ingredients, or these foods, are either beneficial to their health or cause some problems for the point of view of health, and therefore, a judgement is made to buy or not buy a particular food. Consumer need runs the marketplace.

The second point is also one relating to consumer need, and that is understanding that defining consumer need is really the first step in the product development process. Traditionally, the way in which we've done development is that a scientist working in a
laboratory has an idea and begins to do something about it. Or, a marketing person that has been to a party on a Saturday night and has overheard somebody say, “Wouldn’t this be great?” comes back to the laboratory and asks the scientist, “Wouldn’t this be great?” and we attempt to accomplish it. The reality is that it’s a totally inappropriate way to do development and we’ve learned that now. So as we approach development now through a complex series of steps, we begin the process by identifying opportunities. We step back and actually use marketing research, consumer research in combination with an assessment of what is out there. Technically we ask ourselves what we can do to identify and prioritize opportunities that we begin to work on in the laboratory. There’s an efficiency with which we do research in development. The key premise is that we should provide for consumer need.

The third point is that consumer food needs are constantly changing. Too often we’re simplistic in thinking about the consumer needs in their relationship to food. There is a hierarchy of needs in regards to food that each one of us has. And each of us is different from everyone else in terms of this hierarchy of needs as a result of our differences in age, social or economic status, where we live, and our cultural heritage. In terms of food, each of these needs represents something different to every one of us. Historically, we’ve thought of consumers as a large mass of individuals that is very homogeneous. We’ve now realized that there are, in fact, segments in the marketplace: some small, some very large. And we need to identify those segments to begin to direct our research to them to meet the needs of those market segments. We need to constantly go back and monitor who the consumers are, where they are and what their needs are. Within the past six months, we have looked at every piece of consumer research that the fifteen cent promotion assessments has supported, to look at and try to understand consumers in the marketplace. What we learned is that there are a lot of things happening in the marketplace. The first word in each of these statements is “changing.” Changing demography. Changing sociological structure of the population. Changing lifestyles. Changing perceptions about health.

Each of these changes influences the way in which an individual selects the foods he eats. There is constant change in terms of food selection. Therefore, we need to know where the consumers are at any particular point in time - as individual population groups, market segments, if you will, to track changes in eating patterns. We need to understand, for example, that there is such a thing as “situational consumption of foods.” In some instances, we may indulge ourselves by eating a food that at other times we may pass up. This concept goes a long way towards explaining the growth of premiums ice cream products in a marketplace which has shown great growth in lowfat milk products. In that respect, there are times when each of us express some martyrdom in the way that we eat.

The fourth point is that milk and milk ingredients are an under-utilized resource and one to which we need to commit some development energy and attention. The evidence is that dairy represents only 6.8 percent of the total volume of sales in the grocery stores. That means that there is ninety plus percent non-dairy being delivered in the grocery store. We need a piece of that action. But we don’t have it because we haven’t fully explored the potential of milk ingredients. We are in fact attempting to identify dairy food properties in order to expand outside the dairy case.
Finally, I have a general observation about the National Dairy Board Program. It is poised to develop and promote new products and new technologies to meet the needs of tomorrow's consumers. That's where it's headed.

Now, what sets the agenda for the National Dairy Board Research and Development Program? The Act under which the National Dairy Board was created helps set our agenda and is very clear in spelling out the mission of the National Dairy Board. The National Dairy Board is to conduct or carry out coordinated dairy promotion research programs to help expand domestic and foreign markets for fluid milk and dairy products. The strategic marketing alliance in which we stepped back as an industry and said, "Where do we want to be in the future, and how do we want to get there?" is another key influence. The answer is that we want to be market driven. The way to get there is to use market research to help set our agenda. We need to look at the marketplace as being complex and not homogenous, and we must begin to target our research and promotion to market segments. We need to look at channels of distribution. We need to step back and ask who is buying our products? We need to recognize that we actually sell fewer dollars retail than we do in food service, or in the food processing industry. Yet we're committing all of our resources in selling butter to our retail customers. We need to recognize that we sell far too little fluid milk. Only 12% of our fluid milk is sold in food service. In reality, consumers are spending 40% of their food dollars in food service. We need to commit resources to nutrition research to help us develop those new products and move them to markets where they currently do not exist. We must recognize that research and development creates business opportunities in meeting consumer needs, and increasing the sale and utilization of milk.

The Product Nutrition and Research committee of the National Board was established a year and a half ago to develop new products, processes and packages, as well as to deal with consumer perceptions, correct or incorrect, about the nutritional quality of our product.

The committee is consumer focused - why? If you look at the time, money and energy committed to developing new products, for every 100 new product ideas, only one will actually make it to the marketplace. The vast majority of those 100 ideas is eliminated as you screen ideas and look at whether or not the idea is something that consumers will want. If you look at the dollar cost, and the time cost, it is very large. However, the dollar costs for doing test marketing and advertising the product are very, very large compared to the initial analysis of whether the consumer will react positively to it in the first place.

So, the graphs suggest that if we commit energy and time early on in the process, we can save a lot of time and money and we can be much more efficient in the kinds of research projects that we undertake.

Our program, then, attempts to address consumer needs, is focused on consumer needs and wants and from that we'll deliver new products, processes, and packages.
The second attribute that was described in that mission statement was that the program was strategically planned. Ayn Rand has suggested that to achieve you need thought, and that is real power. In January, the dairy industry came together, and identified equities and liabilities that we, as a dairy industry, have. Equities are those things that we uniquely own, and should leverage as we think about new products or in doing our research programs, or as we talk about our products in promotion and education efforts. Liabilities are those things that we prefer not to think about as we do research promotion and education. But we need to step back and look. What are these equities? What is it we know we should be dealing with in promotion? And what are the issues that are going to jump up and hurt us if we don't manage them?

At the National Dairy Board meeting in Savannah, Georgia, the Board approved the program plans for fiscal year 1992 after considering information from a number of different directions provided. I'll come back to the first of those that are listed in the upper left hand corner of this slide. Technology Trends. I want to comment a minute about that. The recommendations from and results of the Strategic Marketing Alliance Forum, were a key part of the thinking as we put together our strategic plan. The market research information that you, as dairy farmers and as a dairy industry, have paid for and supported become a key part of our planning as we do planning for our research program. The outcome of the Strategic Marketing Alliance Research Program, there was a task force that dealt with product and nutrition research. They identified five priorities. The number one priority - we need technology transfer. We've committed 60 million dollars in the history of the National Dairy Board to research and a lot of it is not being delivered to the marketplace. We need to commit to delivering technology to the marketplace. I can tell you today, that the National Dairy Board, in Savannah, Georgia has made a very significant commitment to doing technology transfer. A five year commitment to establishing a technology transfer center. To take the ideas that are coming from our research program into delivering those ideas to the processors in the dairy industry and in the food industry that can do something about delivering new products to consumers in the marketplace. Technology transfer also moves in the opposite direction for our research programs. Technology transfer will deliver, to our research program, information about the needs of the industry, the processor. And they'll feed those inputs into our research program and allow us to be much more effective and efficient at addressing the needs that are coming from the processing industry. They're the folks that represent a key link in delivering to consumers. We need to be aware of them, we need to be involved with them in addressing their needs. In addition to that, the National Dairy Board has some very specific program priorities that became a key part of our research agenda, our research planning, our research plan, and finally there were some existing commitments. We won't walk away from them. They're certainly a part of our research agenda. And we'll work within the constraints of those existing commitments and reorient them to meet the total scope of our research plan.

A second piece of strategic planning is letting the world know and identifying the ball park that you're playing in. Where is it that we at the National Dairy Board are really playing? What are the key result areas to which we will be delivering to the marketplace and identifying those, and spelling them out in words.
A third criteria talked about science and technology. Approximately ninety-eight percent of our research programs are being conducted at academic institutions around the United States. That means that 98% of the research dollars are being spent at academic institutions. Each and every research program, no matter if it's at an academic institution or otherwise, undergoes a very stringent scientific review process. Every single research product that we commit a dollar to, will undergo scientific review and critique, since the long term best interest of the dairy industry will only be achieved through sound scientific method.

The fourth characteristic of our program is spelled out in our mission statement, the program will be technically balanced. By technical balance I mean that we will continue to do product process technology development and we'll also do nutrition and health research. We will do long term research of five years or more, at our dairy food research centers. At our nutrition and health institutes, we also make long term research commitments, but we try to balance that with shorter term commitments to our competitive research program. And those will all fit together in what we call Directed Research. Here we actively manage the direction of the research program, the time and events scheduled for doing research and ultimately the outcomes of those research programs. So, again, it's looking at a balance in terms of our research. We constantly monitor the portfolio of projects that we're supporting. Is that portfolio balanced? Are we getting out of balance in any particular area? As we look at product process research, for example, we'll continue to commit to quality. We'll continue to commit to processing. We'll continue to commit to development. But, we'll also continue to commit to basic research. We'll also continue to commit to bioengineering and biotechnology. We'll also commit to safety as a significant part of our program. That same balance will be monitored in terms of our nutrition and health programs. Nutrition and health fits with product process technology. They're not separate research functions. We become much more effective and efficient in doing our research programs when in fact, we put them together and allow them to compliment one and another. There's a large proportion of our dollars that we've historically spent on calcium and blood pressure regulations. We're moving away from that focus in our research program. The portfolio was out of balance. But we've also learned that they probably were not a wise investment of dairy farmer dollars, so we've reoriented some of our research commitments in that area.

The program will be result oriented. David Johnson, who is the new Chief Executive Officer at Campbell Soup Company, turned the company around within six months to where it started to deliver significant results in terms of return on management invested. Why has this company turned around in six months with David Johnsons? The most important difference in his organization is that he has people focused on delivering results. Research programs need to be focused on delivering measured results. Historically, they've not been. We're talking about delivering new products, new technologies, new packaging to processors and distributors. Ultimately, those processors will pass the benefits on to consumers. That's the end point. That's the result that we want. We need to recognize that and be aware of that. We also want to provide you, as the supporters of the program, information about what we're doing. In a quantifiable kind of way.
We've promised to deliver one new product idea to the marketplace, by July 1, 1991. A processing or packaging concept that has commercial application. We want to measure whether or not we're being effective in our research program in a measurable kind of way.

And, finally, a key part of results orientation is doing evaluations. It is great to put programs in place, but unless you can periodically step back and say, "How are those programs delivering results?", then you'll probably never get there. We did that. As dairy farmers, you've committed some 15 million dollars to research on the relationship of calcium to blood pressure regulation. During the course of this past year, we've looked at whether or not that was a wise investment. We put together a five part evaluation program of whether a commitment of dairy farmer dollars toward calcium and blood pressure research meant anything in terms of selling more dairy products. What we learned is that it would not. We learned that it would sell calcium supplements, but that it wouldn't sell more dairy products. Therefore, we need to reorient our research commitment from that particular area.

And then, finally, the program continues to need to be innovative and creative, bringing the new ideas, the new opportunities. But it needs to do that in a rational kind of way. Kenneth Wolff, who is the President of Hershey Foods Company, has suggested that the food industry suffers from "nowism". A condition characterized by collective short sightedness and an obsession with the here and now, rather than focusing on the future. I'm here to tell you that the National Dairy Board Research Program, the dairy farmers of America, don't suffer from that "nowism". Some time ago, you committed to a research program at the University of California at Berkeley, where we tried to understand the relationship of genetics in diets to cardiovascular disease. A long term commitment to research, a big commitment, a million and a half dollars per year, but a commitment that's going to pay off when we can tell individuals that they have a genetic predisposition to cardiovascular disease. Again, a minority of the population that fit that mode, and tell those folks that they should do something about their diet. But tell the majority of the population that "no, you are not going to die of cardiovascular disease but you need to orient your diet in another way, that is, we need to think about diet quality." Food is more than just something that you eat to deliver nutrients. Food is a part of life and life style. We need to help people understand that quality of life and sound eating habits go hand in hand. Dietary martyrdom should not be necessary for the vast majority of Americans.

Thank you very much. I appreciate the opportunity of being with you and sharing some of my thinking with you.
Toward a Desirable Future Through
Unification & Cooperation

Gilbert H. Porter, Executive Vice President, Northeast Dairy Practices Council

Opening

Many in this room know that during the 1980s I poured a great deal of personal energy into a substantive endeavor titled: TOWARD 2005: Northeast Agriculture Food Forestry: Issues and Opportunities. That project was sponsored by the Northeast Regional Council which is a component of the national Joint Council on Food and Agricultural Sciences. Both financial and personnel support for TOWARD 2005 was provided by many of the organizations, institutions and agencies represented at this 1991 Northeastern Dairy Conference.

Nearly 100 dedicated professionals constituting three task forces and representing an array of interested and knowledgeable people from the public and private sectors developed informed judgments regarding the future of the northeastern food and agriculture system.

A major study component of this unique, insightful, future-oriented endeavor was the Northeast Dairy Industry. The experts, representing dairymen, dairy cooperatives, independent handlers, university dairy leaders, and agricultural bankers, to mention a few, laced with sobering words, their assessments of the gut issues facing the industry. These dedicated individuals not only addressed concerns, framed issues, and made projections, but they took the next and difficult step—they articulated an action agenda.

In large measure, this important work was completed just five years ago. As we meet here today, we have traversed 25% of the timeline from 1985-86 to the year 2005. I recall participants often commenting during the project that 2005 seemed a long way off. Now, hardly a deep breath later, one-quarter of that time frame has slipped by, and we are rushing amidst turbulence, volatility, and troublesome times, toward the threshold to the next millennium.

It seems fitting and proper that after the passage of five years, we pause to assess how we as an Industry are responding to the issues, opportunities and action items set before us back in the mid-1980s. I welcome the opportunity this morning to share a few thoughts regarding the Northeast Dairy Industry. I sincerely appreciate being invited to address this important gathering of Northeast Dairy Industry leaders. I stand here dealing with the excitement that derives from the effervescent intermingling of humility and awe knowing that in this audience are present the Industry leaders who will in fact shape the Northeast Dairy Industry we will work with as we move into the 21st century.

A REVIEW

The core Northeast Dairy Industry change is proceeding just about as projected by the experts who participated in the TOWARD 2005 project. The Industry issues they framed were on target,
and most of them are just as relevant today as they were when put in print in 1985-86. The action agenda articulated by those same individuals also was in proper focus, and continues in sharp focus at this moment.

First, let’s look at what these folks had to say about the future competitive position of the Northeast Food System. They are sobering words!

The projections in the TOWARD 2005 study imply that Northeast agriculture will experience a falling market for many of its products at the regional level and virtually all of its products at the national level. Ten regional food commodities (out of 24 considered) are expected to lose market share even though it is anticipated that each commodity will experience growth in regional consumption. The report stated: “If no steps (actions) are taken to change the situation, the general prospect is for a relative decline in Northeast agriculture’s competitive position in comparison to agriculture in the rest of the United States.”

In light of that broad food system assessment, and your own knowledge of the Northeast Food System, ask yourself — how are we doing? I judge the assessment was right on, and I sense our progress to improve the situation is inadequate.

To the point—a look at what is transpiring regarding the Northeast share of total milk production.

Now, what did the experts participating in the TOWARD 2005 endeavor have to say about issues facing the Northeast Dairy Industry? They set forth several key concerns. A few examples follow:

* The milk marketing system is fragmented and has high assembly, operating, and sales costs. Excess capacity exists.
* Too many dairy cooperatives are heavily leveraged with low producer equity.
* Production per cow and per worker are lagging the nation as a whole.
* The Northeast needs to take the lead in improving milk quality.
* Regionally uniform health regulations need to be established for the movement of milk and cattle across state lines.

The study participants went on to articulate 15 action recommendations. To help validate those action items, spotlight priority recommendations, and facilitate action on those designated of
highest priority and doable, the Northeast Regional Council co-sponsored, with the Northeast Center for Rural Development a dairy forum in the spring of 1988. Nearly 100 dairy industry professionals from across the Northeast and representing every substantial component of the dairy industry attended this forum held in Windsor Locks, Connecticut.

Using the TOWARD 2005 action agenda as a starting point, here are the component titles of the priority action agenda which issued from that productive forum:

- Improve Competitive Position of Northeast Dairy Farmers.
- Market Enhancement.
- Improve Milk Handling Efficiency.
- Milk Quality Improvement.
- Regional Regulations Uniformity.
- Land Grant College Specialization.

Subsequent to the Dairy Forum, a blue-ribbon committee of dairy industry leaders gathered on June 1, 1988 to structure and energize a plan to move this action agenda forward. This Forum Evaluation Committee agreed unanimously that a relatively small diversified group of dairy industry leaders, chaired by an active dairy farmer, represented the best hope to facilitate action. This recommendation was immediately pursued. On August 23, 1988, Norm Harvey, a dairy farmer from Florence, Vermont, Chairman of the Board of Agri-Mark and Chair of this 1991 Conference, agreed to form and chair what came to be known as the Northeast Dairy Industry Leadership Group.

In the fall of 1988, Norm Harvey sought a diversified panel of dairy industry leaders. That panel and their activities is presented in considerable detail in a report which was included in your registration packet.

The Leadership Group has focused on five key concerns. They are directing their attention and leadership to these recommendations:

- Accelerate improvement in production efficiency on Northeast dairy farms.
- Progress a comprehensive effort to improve prices to producers.
- Encourage cooperation of state and federal milk regulatory administrators in establishing compatible regional interstate regulations for the inspection, handling, processing, transportation, and marketing of milk and dairy products.
- Accelerate efforts to develop a more efficient processing, marketing, and distribution system on a regional basis.
- Study further the possibility of reducing the current number of marketing cooperatives in the Northeast, giving special consideration to steps that would strengthen markets within the entire Region.

The Leadership Group's plan of action and progress to date is summarized in the report which you received at registration.

TOWARD A DESIRABLE FUTURE:

As the Leadership Group views the painstaking care and effort that has gone into clearly defining high priority Industry issues and framing action plans, it is necessary to conclude, here at the top of the 1990s, that progress is at best modest in dealing with key Industry issues and moving
action plans forward. It can be stated with certainty that during the 1985-1990 period only minimal progress has been realized in posturing the Northeast Dairy Industry in a more competitive position. In fact, perhaps the most important happening is that some ground may well have been lost during the past five years regarding our regional competitiveness compared with other significant dairy regions in the United States.

It is distressingly clear to the Northeast Dairy Industry Leadership Group that the one critical objective it set for itself which has not been adequately fulfilled is—substantive progress with the Action Agenda. The things that need doing are either not being done or are moving forward with no apparent sense of urgency! The Leadership Group feels strongly that as the Northeast Dairy Industry moves through the first five years of the 1990s, the challenges will deepen, the need for appropriate actions will sharply intensify, and, therefore, Industry leadership must place the very highest priority on Regional cooperative initiatives directed to getting done those things that most agree need doing. This urgent and profound need for action is worthy of a grand, united, fiercely committed, cooperative endeavor directed to demonstrative improvement in the Northeast Dairy Industry competitive position.

If, in fact, we have lost ground in regional Industry competitiveness, we have indeed reached a crucial point. From this threshold, we either continue to march to the rear, or we do an about face and surge toward a desirable future under leadership that must step to the front and inspire and lead a new parade of Industry cooperation, cohesiveness, and progress.

Now if to some of you that sounds idealistic, I apologize not, nor do I shrink from being characterized as a visionary. The pragmatists, the realists have had their day. And, I say to you—they have come up short!

A “desired future” will not emerge if we continue to pursue random, parochial, short term goals. Such a future must be imagined, plans chiseled, and intense attention given to the objectives and execution. Then, that desired future will be attained only through earnest commitment, a long range view, and finally cooperation among those in this room and the dairy farmers you work for.

A truly desirable future for the Northeast Dairy Industry will come through a strengthening of the resolve and cooperative actions of those in leadership positions by adopting policies and attaining objectives which move toward sound Regional Industry progress.

**THE NEED FOR A STRONG REGIONAL DAIRY INDUSTRY**

Dairying is the agricultural mainstay of most states in the Northeast. Dairy marketings rank first as a source of farm income in New York, Pennsylvania, Maine, New Hampshire, and Vermont. They rank second in Connecticut and West Virginia. They are third in Massachusetts, Rhode Island and Maryland. Dairy marketings have slipped to fifth in Delaware and sixth in New Jersey.

Northeast dairy processors enjoy an advantageous location relative to the immense consumer population of the Region—and areas immediately to the south. This factor is particularly significant for fluid milk processors/marketers. Population in the Region continues to grow and per capita consumption of milk and dairy products on a milk equivalent basis also continues to strengthen. Commercial use of dairy products during the past decade has been substantially stronger than expected by most industry economists.
On the other hand, there are some disturbing issues and trends. Earlier, I highlighted several areas of concern.

In order to remain competitive with other dairy regions of the country, and take advantage of the powerful consumer demand right here in the Northeast, stronger regional cooperative initiatives must be progressed now.

One set of statistics I had on the screen earlier helps underscore this need for united action. In viewing these data, keep in mind that nearly one-quarter of the population of the United States resides in the Northeast. To the point of competitiveness, Industry staying-power, and taking advantage of meeting the demand for milk in this Region, the data which follow provide real food for thought:

<table>
<thead>
<tr>
<th>Northeast Share of Total Milk Production: 1983-1990</th>
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<tbody>
<tr>
<td>Percent</td>
</tr>
<tr>
<td>1983: 20.29</td>
</tr>
<tr>
<td>1984: 20.39</td>
</tr>
<tr>
<td>1985: 20.06</td>
</tr>
<tr>
<td>1986: 20.14</td>
</tr>
<tr>
<td>1987: 19.78</td>
</tr>
<tr>
<td>1988: 19.29</td>
</tr>
<tr>
<td>1989: 18.84</td>
</tr>
<tr>
<td>1990: 18.32</td>
</tr>
</tbody>
</table>

As the Sunbelt and West increase their share of total U.S. milk production, the Northeast region has in recent time slipped below the 20% level. In 1989, the N.E. regional share dropped through 19 to 18.8%. The downward trend continued in 1990. You draw your own conclusions as to what the 1991 figures will show. I know not the magnitude, but I forecast it down another notch. Odds are the percentage will drop below the 18 level.

If Northeast dairymen do not meet northeastern consumer demand, clearly others are preparing themselves well to take advantage of this coveted market. The recent Federal Market Order hearings dramatically underscore the length other regional producers will go to weaken the Northeast Dairy Industry. The Region demonstrated commendable cohesiveness and cooperation in responding to this clear external challenge. It will bode well for the future if this display of regional cooperation can spill over to help improve problems within the Northeast region.

**MUCH AWAITS OUR COOPERATIVE ATTENTION:**

Any one here could construct a lengthy list of matters which continue to warrant our diligent attention. I want to focus your thoughts on just five.

**Dairy Cow Productive Efficiency**

There is more to conducting a profitable business than productive efficiency, but in the business of dairy farming, it is a potent factor.
I continue concerned that the Northeast dairy herd has a per cow annual production that has been resting just a bit above the U.S. average. The 1990 figures represent cause for united action. We dropped nearly 200 pounds below the U.S. average!

<table>
<thead>
<tr>
<th>Year</th>
<th>Northeast (Pounds)</th>
<th>U.S. (Pounds)</th>
<th>N.E.-U.S. Difference</th>
</tr>
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<tbody>
<tr>
<td>1981</td>
<td>12,293</td>
<td>12,183</td>
<td>110</td>
</tr>
<tr>
<td>1982</td>
<td>12,399</td>
<td>12,306</td>
<td>93</td>
</tr>
<tr>
<td>1983</td>
<td>12,780</td>
<td>12,622</td>
<td>158</td>
</tr>
<tr>
<td>1984</td>
<td>12,702</td>
<td>12,541</td>
<td>161</td>
</tr>
<tr>
<td>1985</td>
<td>13,092</td>
<td>13,024</td>
<td>68</td>
</tr>
<tr>
<td>1986</td>
<td>13,427</td>
<td>13,285</td>
<td>142</td>
</tr>
<tr>
<td>1987</td>
<td>13,944</td>
<td>13,818</td>
<td>126</td>
</tr>
<tr>
<td>1988</td>
<td>14,199</td>
<td>14,146</td>
<td>53</td>
</tr>
<tr>
<td>1989</td>
<td>14,244</td>
<td>14,245</td>
<td>-1</td>
</tr>
<tr>
<td>1990</td>
<td>14,446</td>
<td>14,642</td>
<td>-196</td>
</tr>
</tbody>
</table>

From a competitive point of view, over the past decade, the Northeast has lost ground to the national average. We should be widening that differential rather than slipping below the national average annual milk production per cow.

**We need to be much better than average!**

The Northeast state with the highest average in 1990 was Connecticut at 15,606 lbs. Fellow dairymen in Colorado are at 17,182 lbs., and in Washington average production per cow is 18,557 lbs. We can come up with all kinds of reasons why the average cow in New York is at 14,456 lbs.; in Pennsylvania at 14,543 lbs. and in Vermont at 14,528 lbs. The haunting question is: why can’t we move significantly above the U.S. average? The answer is — we can if we want to and give it adequate attention. A significant increase in production per cow would give profitability a solid boost. Importantly, it would give us the opportunity to reduce cow numbers, and put less total milk on the market. Two cows at 16,000 lbs. typically will be more profitable than three 12,000-pound cows while yielding 4,000 lbs. less total milk. This is a powerful concept which needs to receive much more attention on a regional basis. It is a potent, economic factor over which individual dairymen have almost total control.

**Butterfat Issues**

Fluid processors wrestle with excess butterfat. Cheese manufacturers wrestle with excess butterfat. The Commodity Credit Corporation wrestles with excess butterfat. And, consumers are telling us loud and clear that they are going to purchase milk and dairy products carrying less butterfat.

Just about a year ago, Cornell professors, Doctors Dave Barbano and Andy Novakovic cosponsored a conference in Syracuse in conjunction with the NYS Cheese Manufacturer’s Association annual meeting That conference was titled: The Milkfat Issue: Production, Processing and Marketing. The proceedings are now available and I hope essentially everyone in this room has a copy and has read it a second time.
This year, Dave and Andy co-sponsored a follow-on conference titled: Farmers and Processors: Working Together to Maintain Profitability. Butterfat issues, rightly so, again came in for considerable attention. If the proceedings are made available, I urge everyone to obtain a copy and do more than peruse it. I found this conference held on March 4 chock-full of powerful, thought-provoking information.


<table>
<thead>
<tr>
<th>Derivation of 1989’s “Ideal” Cow</th>
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</thead>
<tbody>
<tr>
<td>3.48% Butterfat</td>
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</table>

“Ideal” Butterfat Production =
Total Butterfat Produced—Surplus Butterfat

1. Total U.S. Butterfat Production = 5,369,000,000
   Total U.S. Milk Production = 144,252,000,000 pounds 3.72% butterfat

2. USDA net removal of surplus butterfat as butter, cheese, NFDM, and evap. milk =345,452,000 butterfat pounds

3. Total B.F. produced-Surplus B.F. = “Ideal” butterfat prod. 5,369,000,000 -345,452,000 = 5,023,548,000 butterfat pounds

4. “Ideal” B.F. prod. divided by 144,252,000,000 lbs. of milk = 3.48% butterfat

What we should be doing about excess butterfat on the farm, in the processing plant, in product development, in our research centers, in pricing policy, in pricing structures—all these need to be moved up on the priority list on a regional and national basis. This is a critical area of concern! It has to do with a pricing system that decreases the value of butterfat and strengthens the value of the solids-not-fat. It has to do with developing and marketing dairy products consistent with consumer preferences.

Northeast Milk Producers and Processors Need Each Other

I mentioned earlier that as an industry we are rushing amidst turbulence, volatility and troublesome times. That is an apt description of the environment we have been dealing with, and there is little reason for the intensity to lessen as we move through the 1990s. One can in fact, develop a good case for the pendulum to swing in even wider arcs as we move through the days ahead!

As I meet and visit with dairymen, independent milk handlers, and dairy cooperative leaders, though differences abound, there is one profound common thread—profits are difficult to come by and returns on investment are nil to at best, grossly inadequate.

Producers and processors historically have functioned on a confrontational basis. Though there has long been good reason for both producers and processors to understand one another, and work together more closely, today’s environment and what we can forecast for the foreseeable future
sounds a clarion call for improved understanding and cooperation. Throughout the Northeast, both groups need one another as never before.

**Milk and Dairy Product Quality**

The Northeast Dairy Industry Leadership Group set forth as a paramount Industry objective the following milk quality statement:

*Milk Quality Improvement—Milk quality throughout the continuum from cow to consumer must be enhanced. The average somatic cell count can be reduced by lowering the maximum permissible level, and by establishing economic incentives to dairy farmers. Redesign, test, and retest plant operations to remove opportunities for post-pasteurization contamination. Improve the plant-to-consumer fluid milk and dairy product delivery, storage, and display system.*

Our milk and dairy products are wholesome and safe. In the next breath, it is necessary for us to grant there is substantial room for continued quality improvement. We need to lift up for heightened attention, on a Regional basis, milk and dairy product quality enhancement.

Northeast consumers expect more from us than residents of the U. S. at large regarding such factors as food safety and truth in labeling. This conclusion comes from a study commissioned by the NYS Department of Agriculture and Markets as part of its new Food Safety and Consumer Information Program.

The survey used extensive interviews with 1,203 residents of NYS and 800 respondents from four other regions of the country. Highlights of the survey include the finding that New Yorkers are concerned over food-borne illness (44% nationally, 53% in NY) and pesticides (41% nationally, 55% in NY). New Yorkers were also more negative than the rest of the country about food quality—40% felt it had deteriorated. Though this survey was not conducted throughout the Northeast, I judge it is reasonable to conclude that consumers throughout the Northeast are at least as concerned about food quality and safety as are residents of New York. We need a regional thrust and regional support to move milk quality to a new higher level.

It is a delight for me to now be associated with the Northeast Dairy Practices Council. For over 20 years, it has developed an enviable track record in milk quality and sanitation improvement. Further, it is a brilliant example of what can be accomplished through Regional unification and cooperation.

On behalf of NDPC, I have submitted a proposal for consideration at the upcoming 23rd National Conference on Interstate Milk Shipments, that the somatic cell count (SCC) standard be reduced from 1,000,000 to 750,000. The Pasteurized Milk Ordinance could well be modified to call for a SCC standard of 500,000 by 1994.

**Consolidation of Dairy Cooperatives in the Northeast**

This has long been a subject of discussion—study—debate—more study—and continued discussion.
In preparation for this presentation, I read and reread the article in the January 1991 issue of *Dairy Herd Management* titled: "Get Ready for Co-op Mega-Mergers." The sub-title reads like this—"If AMPI and Mid-Am become one, the merger will be just the first of many as industry restructures."

The second sentence in the first paragraph provides an interesting prognostication:

"One dairy economist expects the top 10 co-ops to be consolidated into no more than five by the year 2000, as the number of dairy producers shrinks and the industry becomes more deregulated."

The following sentence provides food for thought:

"Not only will co-ops become fewer in number, but how they operate could change significantly if 40 years of dairy policy is gradually dismantled."

That’s the big, broad view. Let me attempt to bring some focus to our Northeast situation.

During the deliberations of the Northeast Dairy Industry Leadership Group, an incisive paper was presented and titled: "Where Northeast Dairy Cooperatives Are Going; Where Should They Go?" Only that I had time to summarize the many facets of that excellent presentation. For our purposes here, the final paragraph brings us to the bottom line -

"The final chapter on the kinds of cooperatives that will best serve dairy farmers in 2005 should be written by the cooperative leadership—and soon."

Earlier in my paper I said this:

"If, in fact, we have lost ground in regional Industry competitiveness, we have indeed reached a crucial point. From this threshold, we either continue to march to the rear, or we do an about face and surge toward a desirable future under leadership that must step to the front and inspire and lead a new parade of Industry cooperation, cohesiveness, and progress."

We need the help of everyone, I do not set anyone, nor any group to the side, but I say to you here on March 26, 1991 at this 1991 meeting of the Northeast Dairy Conference, that if we are going to commence a timely, useful thrust to attain a desirable future for the Northeast Dairy Industry, the leadership of the dairy cooperatives must step to the head of the ranks and assure we get that job done!

* Northeast cooperatives have and continue to act as bargaining agents for the large majority of Regional dairy farmers.
* Cooperatives own and operate processing facilities to handle milk supplies to balance the Class I needs of fluid handlers.
* Handlers look to cooperatives to replace shortages in their milk supplies.
* Cooperatives play a key role in the process of improving market conditions through 1) legislative activities, 2) support for promotion & research programs, and 3) maintenance of economics and public and member relations departments to keep all dairy farmers and public informed about dairy issues.
There is no issue as to where the real backbone, the core of the Northeast Dairy Industry is in residence. It is with the dairy cooperatives. For that reason, if for none other, dairy cooperatives have a primary responsibility to lead this noble Industry that currently is in disarray. We are fragmented and disjointed. We must search for a "new order".

My friends, the time has come for us to move from the celebration of independence to a new celebration—that of cooperation. We raise high the banner of independence and parochial pride, in many cases, to our own detriment. We have a high calling to respond to and we must develop a high profile for moving the Northeast Dairy Industry forward by all working together to resolve problems, remove barriers, and dissolve constraints.

We have attempted to progress incrementally—a little change here, and a bit of a twist there. That does not do justice either to our intellect or our imagination. With the will, dedication, innovativeness and industry that has long characterized this Industry, we will rise at this historic turning point, and sculpt a desirable future for all who continue on—and all who follow.

**A New Opportunity for this Conference**

I am not known for posing challenges and suggesting goals without providing a few thoughts regarding execution.

I propose that the leadership of this Conference give serious consideration to structuring itself to take on the mission, goals and objectives developed by the Northeast Dairy Industry Leadership Group. They took on a difficult interim task. I submit their meritorious commencement could come to fruition under the aegis of the Northeastern Dairy Conference. It would be a natural, and should be a perfect fit.

For starters, I suggest that committees be established to focus attention on each of the six high priority objectives adopted by the Leadership Group. Development of the strategic plan should become the responsibility of the Executive Committee.

Each committee should progress its area of responsibility and make a formal report at this Conference one year from now, and again in 1993.

Now I will cease. It has been a sincere privilege to share these thoughts and present an idea or two for your consideration.
Cooperative Marketing Strategies for the Northeast Dairy Industry

Randall E. Torgerson, Administrator
Agricultural Cooperative Service, USDA

The year 1991 will likely go down in the annals of agricultural history as one of (1) severe testing of farmers' determination to stay in the dairy business; (2) dairymen's ability to adapt to price volatility associated with market oriented policies, and (3) dairymen's rediscovery that to address issues confronting the producer segment of the industry they need strong, well organized cooperative businesses to build markets, achieve fair returns, and develop an effective voice in industry affairs.

We approach this juncture in the industry with several observations. National demographics suggest a relatively large number of producers are near the twilight of their careers. They can tough out this low cycle in milk prices, or cash out by selling herds at a time of relatively good replacement cow and beef prices. Dairymen enjoyed a couple of back-to-back years of good earnings. This has allowed debt to be paid down and improvements made. However, a number of dairymen not anticipating or heeding warnings of the prospective drop in milk prices did not put away adequate funds to pay this year's taxes and have had to borrow money to do it. Obviously, for them, this is not a very auspicious start to 1991.

The key to dairymen's ability to survive will be management of farm costs and stress. It is particularly noteworthy that attention to feeding practices is having astronomic impacts on production yields. And that's not taking into consideration other improvements such as use of better genetics, new milking and housing systems, better disease control procedures and the like.

Dairy farmers' off-farm businesses have also been subject to the rationalization process. The question is whether this is taking place fast enough. The Northeast continues to be among the most fragmented in the United States. There are 86 dairy cooperatives by our count in the Northeast, identified as points North from Pennsylvania and New Jersey and West to the Eastern Ohio border. That is a lot of organizations representing a declining number of dairy producers. It is more than any other region in the United States. By comparison there are 63 dairy cooperatives in the East North Central region composed of 45,000 dairymen and producing twice as much milk.
As these adjustments are ongoing in various stages, we also have myriad policy changes being considered or in the process of being implemented. Included are proposals put before the Department's Dairy Division in the national federal order hearing, recommendations made to the Department in compliance with the 1990 Farm Bill on supply-management alternatives, and implementation of assessments under the Bill. Some States are even proposing local remedies to the milk price drop that would appear to conflict with or preempt national programs. And at the federal level, several bills have been introduced recently or acted on in Congress that would provide emergency price relief.

If this picture suggests to you a dynamic situation in the industry, you're right. Farm programs have been de-emphasized because of the Budget Reconciliation Act of 1990. This means producers are subject to more market orientation in price and income levels. To better deal with market forces, dairy producers must seize the opportunity for more self-management of their industry through cooperatively owned businesses. This is a time for developing new and improved marketing mechanisms and institutions that are producer guided and self-help oriented.

Professor Larry Hamm put it well at the 1990 Outlook Conference when he stated that if the U.S. dairy industry is forced open to international competition and to self-help price support policies, dairy cooperatives may well be the only nearly industry-wide institutions left to achieve national level policy coordination.

Now is an excellent time to reassess commitment to self-help solutions to the dairy situation and specifically how Northeast cooperative marketing strategies can bring a semblance of cohesion and prosperity to this important farm sector.

**Cooperative Presence In Markets: Where Are We?**

As a starting point, let's look at Orders 1 and 2 and the trend in cooperative shares of producers and milk volume.

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<tbody>
<tr>
<td><strong>Average co-op share of:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Order #1)</td>
<td>-</td>
<td>-</td>
<td>86.8</td>
<td>84.8</td>
<td>80.0</td>
<td>79.0*</td>
</tr>
<tr>
<td>(Order #2)</td>
<td>73.8</td>
<td>71.8</td>
<td>65.2</td>
<td>55.8</td>
<td>56.1</td>
<td>51.5*</td>
</tr>
<tr>
<td>Milk receipts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Order #1)</td>
<td>-</td>
<td>-</td>
<td>83.0</td>
<td>80.6</td>
<td>77.8</td>
<td>78.4*</td>
</tr>
<tr>
<td>(Order #2)</td>
<td>73.7</td>
<td>71.6</td>
<td>64.0</td>
<td>53.0</td>
<td>50.7</td>
<td>49.0*</td>
</tr>
</tbody>
</table>

*not available

*estimated
The trend indicates that in these two markets, cooperatives have been losing market shares. You'll notice in Order No. 2 a drop of 22 points in cooperative share of producers from 1965-1990 and almost a 25 percent drop in cooperative share of producer milk receipts. These numbers do not demonstrate the type of strength in organization or influence in the marketplace necessary for long term survival.

The Agricultural Cooperative Service has reported annually information on the country's largest cooperatives since 1980. Anywhere from one-quarter to one-third of these are dairy cooperatives in a given year. Using the dairy cooperatives as a subset, we have selected those in the Northeast and compared their ratios to the others. You will find this information useful as plans are made for developing future cooperative strategies.

You will note that return on investment, return on total assets, and profit margins are each lower for dairy cooperatives in the Northeast in recent years compared to the country's other largest dairy cooperatives. Return on investment and profit margins for 1986 in the Northeast appear higher, but this is largely due to an aberration when one cooperative had a substantial extraordinary income from sale of assets. Profit margins have continually declined since 1986.

Other ratios such as the current ratio, acid test, litmus test, interest coverage, and asset turnover show each is lower than for other dairy co-ops. Balance sheet ratios such as the total assets to equity, term debt to equity, total liabilities to equity, equity to total assets, and member capitalization rate each demonstrates a lower level of capitalization.

From these financial ratios, we can observe that Northeast dairy cooperatives have some major chal-
lenges ahead. You must reduce debt and increase member equity. Debt reductions will lower interest expense and help improve management’s chance for increasing profitability. This change will improve all the aforementioned ratios. It is a simple but major challenge. (Some might argue that Northeast dairy cooperatives pay out more earnings in terms of price premiums and thus result in lower net margins, but I am not convinced.) Our observation is that the Northeast dairy farmers have been less willing to invest in their cooperatives. This in turn straps cooperatives’ liquidity and results in lower net savings.

**Cooperative Marketing Strategies**

In light of the foregoing situation, I’d like to discuss four areas concerning future marketing strategies: (l) Rationalization of cooperative structure to improve effectiveness and reduce fragmentation; (2) improving pricing through controlled milk movements; (3) developing a new educational thrust on the economics of group action, and (4) strengthening cooperatives’ balance sheets.

**Rationalization of Cooperative Marketing Structure**

One of the ways that restructuring can take place is through coordination of existing cooperative marketing efforts through affiliations, joint cooperative ventures, federations or other marketing agencies-in-common. If we are honest with ourselves, I don’t think the so-called corporate-cooperative joint
ventures in dairy in the Northeast have proven to be an effective strategy that can be recommended despite admonitions from the Harvard Business School. Too many are Rube Goldberg combinations that have been less than successful. As an alternative, dairymen simply have to maintain control of their marketing arm in such arrangements if they are to be the chief beneficiaries.

Better strategies it seems are to closely examine methods that are working or have the potential to work through closer collaboration or realignment among dairy cooperatives. One of the least costly methods is the use of affiliations between cooperatives to minimize hauling costs. The opportunity here is development of unified cooperative hauling and direct marketing to the closest plants. Milk from dairymen who are members of different cooperatives may be carried on the same truck according to this method of "milk swapping." In a time when producers appear to be interested in milk price only, minimization of transportation costs can be an immediate, albeit limited, avenue to enhanced returns.

Also worthy of consideration is further coordinated marketing among cooperatives in hard products. Many organizations like Challenge in California and Land O'Lakes in Wisconsin and Minnesota had their origins as marketers of butter, nonfat dry milk, and cheese for local dairy cooperatives. While considerable structural change has occurred since their founding, the concept of
joint marketing by regional cooperatives in areas such as the Northeast is still a sound one. It can even transcend regions to the national level as is characteristic of Maryland-Virginia’s and Atlantic’s memberships in Land O’Lakes.

The second major way of enhancing dairy farmers’ strategic marketing position is through improved ownership coordination. This can take place through acquisitions, mergers or consolidations. Clearly, the tendency to have an increase in the number of cooperatives in the Northeast during the past decade has been counter to the national trend. In most orders, dairy farmers have attempted to achieve benefits of efficiency, coordination, and marketing power in dealing with buyers through multi-state marketing units. They appear to be most successful when organized around markets and/or cooperative philosophies that are similar compared to those that are vastly different.

There is some feeling in dairy circles that a merger of orders 1 and 2 may be a forerunner to such consolidation. However, rapidly dwindling producer numbers in some Northeastern states may be a more decisive forerunner to cooperative consolidation. Generally, fewer producers need fewer cooperatives.

What also may be a forerunner to structural improvement is the significant restructuring by cooperatives such as Agri-Mark and Dairylea. If cooperative cultures are
fostered that are compatible, closer working relationships and ultimately more mergers and consolidations may be possible. These will lead to improved utilization of standby processing assets on a profitable basis. Recent sales or mothballing of assets suggests that capacity utilization in the cooperative sector in remaining plants such as Holly, O-AT-KA and West Springfield are greatly improved.

**Controlling Milk Movements for Improved Pricing**

It's a well known fact that handlers have concentrated ownership of dairy assets in the past decade. Businesses like Labatt's from Canada, Belgian sugar interests that own International Cheese, and even Dutch and French investments in dairy firms have added a foreign or global dimension to the Northeast dairy industry. In markets characterized by more volatility, handlers will continue to push risks onto the backs of the most weakly organized part of the food chain—producers. In a fast changing market environment, a farmer-owned-and-controlled marketing organization is the most promising alternative to ensure market access and stability over the long run.

The idea of farmers and cooperatives banding together for over-order pricing—like RCMA—is a fine concept and a step in the right direction. An ACS sponsored study of over-order pricing around the Nation, indicated that over-order premiums can be implemented and sustained only in those markets where cooperative presence is very strong. An over-order pricing agency without performance ability or the ability to move milk is likely to be ineffective or short lived.

The common thread of successful over-order agencies is strong cooperative presence in the market. MACMA and CMPC are successful because cooperative shares of the Mid-Atlantic market and the Chicago market are very high. Less known in the East but equally successful agencies are Hoosier Federation in Indiana (AMPI and MMI) and Producer
Equalization Committee in Michigan (MMPA, Independent Cooperative Milk Producers Association, and NFO). In the Northeast, the experience is that it is less difficult to negotiate over-order price in New England than in New York even though the two regions are under the same RCMA framework, because cooperatives' market share in New England is higher. To the West of the Northeast, in the Eastern Ohio-Western Pennsylvania Market, the Producer Equalization Agency has labored long and hard to sign up producers but is still short of its goal. Why? Because cooperative market share is only about 50-55 percent.

Neither rationalization of structure of cooperative marketing organizations or improved pricing can be accomplished without attention to the two other important areas.

**Education in the Economics of Group Action**

We have seen a tremendous attrition in recent years in dairy marketing and cooperative marketing specialists in public sector institutions such as universities and the Extension Service. Yet, it is in distressed times like the industry is now experiencing that cooperative interests can launch a successful education process. The economics today are simply good for an education process with producers crying for help. Cooperatives that are restructuring today must prove themselves to a new generation of producers. Cooperative leaders need to go back to the basics of education—a frequently forgotten and overlooked ingredient to sustained successful cooperation.

The question is who is doing it? Maybe too much effort is going into explaining and legitimizing fragmentation, rather than showing the strategies necessary for strengthened solidarity and market influence. Cooperatives, farm organizations, and public institutions each have an important role in the education process.

**Attention to Strengthening Cooperative Equity**

Northeast dairy farmers appear to be traditionally stingy about providing necessary equity capital for dairy cooperatives. Cooperatives need money to modernize plant facilities and to keep them technologically up-to-date, to adequately market products, and to build markets over time. Indications are that the practice of bargaining for price and free-riding on other cooperatives to provide market-wide services and process surplus milk to sell to the government is less and less a viable alternative for survival, much less for prosperity.

If dairy farmers are only willing to capitalize their cooperatives for bargaining, they shouldn't complain about low milk prices. If they want their cooperatives to generate income, they must be willing to provide more capital. There is no free lunch.

Too many Northeast cooperatives are under pressure to pay out the maximum in terms of milk price, keep equity requirements at rock bottom minimums for operations, and milk the depreciated assets. Woe is the cooperative board that says we still have a few hundred thousand in equity—and think they can operate one more year, only to discover they have bankrupted their marketing business.
It all gets back to strategic planning in which explicit goals and objectives are set for the cooperative. Dairymen cannot expect something out of nothing, nor can they expect a lot out of a little bit. The challenge is to keep members well informed of the market situation, membership benefits, and equity requirements.

**SUMMARY**

In conclusion, may I ask you to look into the crystal ball with me. We have learned through many years of trial and error that cooperative effort yields more satisfactory returns to a greater number of people than rugged individualism and short sighted selfishness brings to smaller numbers. The fact is that Northeast dairymen have been leaving too much money on the table. Organization for self preservation is the way to economic security to which every dairy farmer and dairy family aspires.

There is an absolute need for intelligent cooperation among producers in the Northeastern states. It is necessary to elect and select the right kind of brains and leadership in each dairy organization to put them to work to solve differences, bury prejudices and jealousies, and come up with the institutional structure and programs acceptable to producers and in the interest of the industry.

What I see is restructured cooperative efforts that secure over-order pricing for dairymen from Florida to the Canadian border. I see more closely coordinated hard product marketing. Ultimately, we will see the emergence of more soundly financed regional organizations that result from consolidation of existing entities. Profitability and improved pricing will result. So will increased stability in the producer sector.

I'm convinced that it can be done.