While the number of dairy cooperatives has been declining ever since 1940, their market share of farm milk marketings however, continues to increase (Table 1). The decline in the number of dairy cooperatives accelerated during the 1960s as by that time, dairy cooperatives had recognized the need for centralized management of milk supplies and disposition of surplus milk. As markets grew larger and the number of buyers smaller, cooperatives increasingly found themselves in potentially toe-to-toe competition with other cooperatives. They became increasingly vulnerable to undercutting on prices, service charges, delivery requirements and other matters. Continuing to maintain their separate identities, cooperatives began to form federations in an attempt to obtain higher prices for their members and to realize cost savings from better organized movement of milk. In other words, the federations served as a marketing agency in common. But by the mid-sixties, federal milk marketing orders began to reflect the increased need for more stable price alignment among markets. The federated cooperative structure hampered bargaining efforts and equity among farmers. As a result, by 1970, many cooperatives of the major federated organizations had merged into four large regional centralized full-service cooperatives: Associated Milk Producers, Inc., Mid-America Dairymen, Inc., Associated Dairymen, Inc., and Milk Marketing, Inc.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Dairy Cooperatives</th>
<th>Farm-Level share of farm marketings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940-41</td>
<td>2,374</td>
<td>48</td>
</tr>
<tr>
<td>1960-61</td>
<td>1,609</td>
<td>61</td>
</tr>
<tr>
<td>1980</td>
<td>435</td>
<td>77</td>
</tr>
<tr>
<td>2000</td>
<td>213</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: USDA, RB-Cooperative Service
Mergers and consolidations of dairy cooperative slowed in the 1970s and 1980s, but once again intensified during the 1990s. From 1992 to 2000, 84 dairy cooperatives went out of existence (USDA-RB-Cooperative Service Report No. 187). Thirty-six of these were due to dissolution, another 36 by merger with another dairy cooperative, eight were acquired by another dairy firm, and four simply phased out their dairy operation. With this, the four large regional cooperatives no longer existed. Associated Milk Producers Inc. (AMPI) was split three ways with two regions, the Upper Midwest Region and the Southern Region, becoming parts of other regional cooperatives. The North Central Region remained an independent cooperative. In 1998, the Southern Region of Associated Milk Producers Inc., and three of the other four regionals, Mid-America Dairymen, Inc., Milk Marketing Inc., and Associated Dairymen, Inc., along with others consolidated into Dairy Farmers of America (DFA). (As of 2002, DFA was truly national in scope, handling about 22 percent of the nation's milk supply from 16,905 dairy farmer members across 45 states.)

In 1999, the Upper Midwest Region of AMPI was merged into Wisconsin Dairies, which later changed its name to Foremost Farms USA. Land O'Lakes, Inc. (LOL) also became national in scope through the merger of Atlantic Dairy Cooperative in the Northeast and Dairymen's Cooperative Creamery in California. LOL now has 4,711 farmer members and handle more than 7 percent of the nation's milk supply. By 2000, the top 50 of the 213 dairy cooperatives accounted for almost 90 percent of farm level milk handled by cooperatives and nearly 80 percent of the nation's milk marketed by farmers. The top 4 dairy cooperatives account for 46 percent of the milk handled by cooperatives and 41 percent of the nation's milk marketings.

In addition to mergers, dairy cooperatives are increasingly entering into strategic alliances. Some of these alliances are among dairy cooperatives and others are with investor owned firms. Recent examples of strategic alliances among dairy cooperatives include joint ventures between LOL and Alto Dairy Cooperative in marketing commodity cheese, and a joint venture between DFA and LOL to own and operate a Minnesota cheese plant. Strategic alliances with investor owned firms include a joint venture between Michigan Milk Producers Inc. and Leprino Foods to make and market mozzarella cheese. In 2000, LOL sold its fluid milk operation to Dean Foods but still retained the ownership of LOL brand names and continued to supply raw milk to Dean Foods. In the same year, LOL formed a joint venture with a Mitsui, a Japanese firm to build a large cheese plant in California.

Factors Driving Mergers, Consolidations and Strategic Alliances

Several factors are driving this increased activity in mergers, consolidations and strategic alliances. The more important ones include:

- The wave of rapid consolidation in the dairy sector including food retailers looking to gain greater procurement and volume efficiencies. For example, Suiza Foods entered the dairy sector in 1993. By 2000, it had acquired 39 dairy firms, becoming U.S.A's largest manufacturer and distributor of dairy products. In 2001, the company merged with Dean Foods, resulting in a company with about 30 percent share of the beverage market. In 1992, the 20 largest food retailers' market share was 37 percent. By 1999, their share was 51 percent. In response to this consolidation, dairy cooperatives have sought to hold their place at the bargaining table, meet customer needs, supply larger volume requirements, and meet product standards through mergers and consolidations. Dairy cooperatives must
have sufficient market clout in order to serve these large food customers. The Wal Marts, for example, wish to procure specific food items from no more than one or two suppliers for their stores across the country. If dairy cooperatives are going to have the volume of product and market clout to serve the Wal Marts, they also need to be bigger.

- **Tight operating margins and capital constraints.** Dairy farmers are expecting dairy cooperatives to add value to raw milk. But many cooperatives struggle with generating adequate capital to process, package and market value added products simply from the traditional means of retaining a portion of profits generated from operations. Dairy cooperatives find that tight operating margins do not allow for individual cooperatives to duplicate efforts. Instead, mergers, consolidations and strategic alliances are a means of pooling scarce capital, increasing volume and associated operational efficiencies.

- **Market entry.** Attempting to enter a market requires large sums of capital and exposes a firm to considerable risk. This has been a factor in some dairy cooperatives who have been entering into strategic alliances with investor owned firms for processing its members’ raw milk into value added dairy products.

- **Rapid advances in information technology (web sites, e-mail, computerized production, sales and inventory systems), have greatly enhanced the reach of a cooperative.** Thus, through mergers, cooperatives are expanding their geographic reach and countervailing market power.

- **The change in federal dairy price support policy during the 1990s from a relatively high safety net to one of more market orientation has resulted in volatile raw milk prices.** As a result, some dairy cooperatives that operated balancing plants or hard dairy product manufacturing plants have chosen to consolidate with more diversified cooperatives, thereby gaining flexibility in product mix and efficiency from a more rationalized system of plants.

But not all dairy cooperatives are becoming larger as a means of competing in the market place. Dairy farmers continue to operate and to organize new successful smaller dairy cooperatives. Some formed when dairy farmers became uncomfortable, for a variety of reasons, with their larger organizations and sought alternatives to the “mega-cooperative” for their marketing needs. Other producers have made new efforts to capture marketing margins by focusing on a niche, perceived or real, such as “rBST-free”, “organic” or “high quality”. Most commonly the product made is specialty cheese, but others have engaged in butter, soft manufactured products and fluid milk products. Between 1992 and 2000, 26 of these smaller dairy cooperatives were formed.

**The Status of Operations of Dairy Cooperatives**

While dairy cooperatives handle about 89 percent of farm milk marketings, many do not process raw milk into dairy products, but rather market the milk in raw form to various fluid and manufacturing dairy companies. A 1997 study by USDA-RBS-Cooperative Service found that 61 percent of the cooperative total milk volume was sold as raw milk and the other 39 percent was manufactured in plants operated by cooperatives. Dairy cooperatives do hold a major share of manufactured dairy product markets. The most recent data was provided by the 1997 USDA, RBS-Cooperative Service Study. During the five-year period, 1992 to 1997, a cooperative’s share of butter decreased from 65 to 61
percent, dry milk products from 81 to 76 percent, natural cheeses from 43 to 40 percent, and packaged fluid milk product from 16 to 14 percent. The cooperative’s share of cottage cheese stayed near 10 percent while its share of ice cream sales declined from 10 to 6 percent. In 1997, dairy cooperatives marketed 11 percent of the nation’s ice cream mix, 4 percent of yogurt, 65 percent of bulk condensed milk, and 48 percent of dry whey products.

While dairy cooperatives have a significant share of manufactured dairy products, most are marketed as commodities in bulk form to food service firms. Dairy cooperatives also provide private label products for other firms. Yet, some have established nationally recognized brands, most notable of them being Land O’Lakes butter.

Summary

With the structure of dairy farms and the food system rapidly changing, it will be challenging for dairy cooperatives to meet the needs of a more diverse farmer membership and to be competitive trying to serve the needs of larger customers. It will be difficult for cooperatives to find the necessary capital to grow their business. This business environment no doubt, will force dairy cooperatives to consider additional mergers, consolidations and strategic alliances, both with other cooperatives and investor owned firms. However, with a market-oriented federal dairy policy and resulting market risk, there are major opportunities for dairy cooperatives to add value for both dairy farmers and their customers. It is possible that dairy farmers will develop closer contractual relationships with their cooperatives and the cooperatives in turn a closer contractual relationship with their food system customers.

There is no doubt that dairy cooperatives will continue to be a major player in the procurement, pricing, processing and marketing of milk and dairy products. Their market shares are anticipated to hold, if not increase.

Additional Information

USDA-RB-Cooperative Service Report No. 187


Robert Cropp is Director of the University of Wisconsin Center for Cooperatives. He is also a Dairy Marketing and Policy Specialist with University of Wisconsin Cooperative Extension. Having devoted the past 36 years to working with agricultural cooperatives and on dairy marketing and policy issues, Dr. Cropp is frequently called upon to provide expert testimony on federal dairy policy issues at U.S. Congressional hearings. Dr. Cropp facilitates strategic planning sessions for cooperatives, assists with business structural changes and in organizing new cooperative businesses.