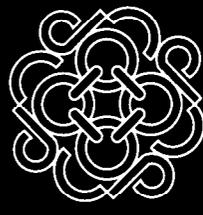


Fruit and Vegetable Cooperatives



FARMER COOPERATIVES IN THE UNITED STATES
COOPERATIVE INFORMATION REPORT 1
SECTION 13

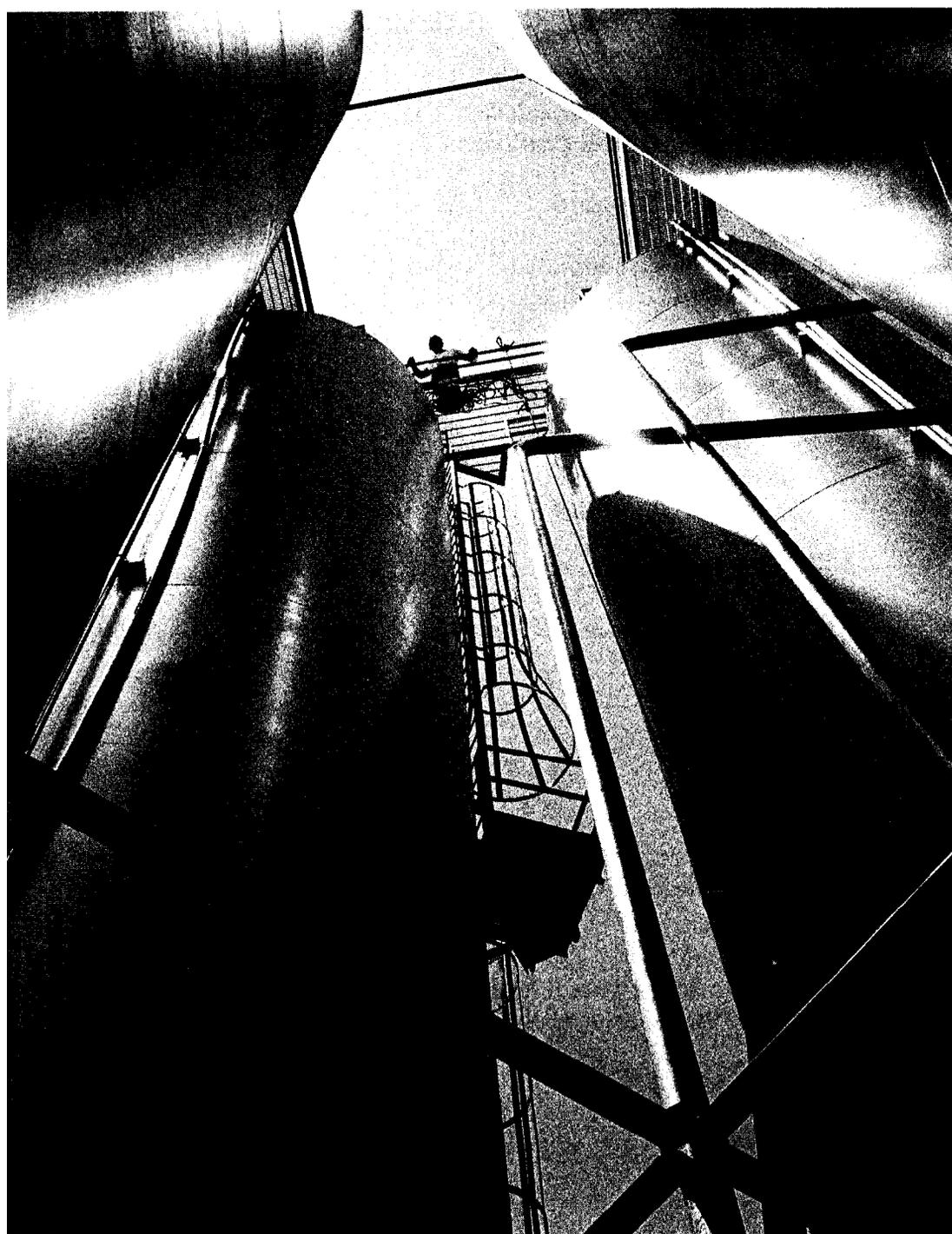
UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL COOPERATIVE SERVICE



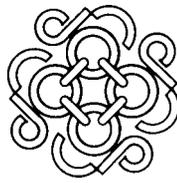
CONTENTS

Cooperative Business Profile.....	.5
Sales of Fruits and Vegetables.....	.5
Fruit and Vegetable Cooperatives.....	.6
Membership.....	.9
Regional Profile.....	11
Location of Cooperatives.....	.11
Regional Sales Distribution.....	.15
Organizational Structures.....	17
Cooperative Marketing.....	.21
Bargaining.....	.23
Marketing.....	27
Cooperative Marketing Tools and Strategies.....	.47
Marketing Agreements and Contracts.....	.47
Pooling.....	50
Marketing Orders and Cooperatives.....	.51
Working Arrangements With Other Firms.....	.52
Other Types of Cooperatives.....	55
Future Issues for Fruit and Vegetable Cooperatives.....	56

This is not a petroleum refinery nor a fertilizer plant. The towers are evaporators at a tomato paste processing plant owned by Tri/Valley Growers (Volta, Calif.). Farmers have moved increasingly into processing to preserve raw product markets and diversify income opportunities by extending ownership to one or more of the stages in the system bringing food from the farm to consumers.



Fruit and Vegetable **Cooperatives**



Farmer cooperatives play a significant role in marketing fruits and vegetables grown in the United States. In 1988, cooperatives held a market share of more than 20 percent of all fruit and vegetable sales, a continuation of a steady rise in market share from slightly more than 16 percent in 1985. For specific commodities, cooperative market share may be much higher, with many cooperatives being the market leader. For example, most fresh citrus, raisins, and cranberries are marketed by cooperatives.

The term “fruits and vegetables” actually represents a number of unique industries defined by different commodities and product forms. While some cooperatives market a wide range of fruits and vegetables, most market a specific set of commodities, with many of the better known cooperatives identified with a single commodity. Ocean Spray is synonymous with cranberries, National Grape and its Welch’s brand with grape products, and Sunkist with oranges.

Cooperatives can also be grouped as being either “fruit” or “vegetable.” Few cooperatives market both. Almost all vegetables are annual crops, and most fruits are perennials with up to 5-year lags in production. While a farmer can rotate from year to year among a variety of vegetables, fruit production is generally limited to a specific piece of land for long periods of time, meaning fruit production is not compatible with vegetables in terms of cultural

practices. Also, regions and parcels of land best suited for the production of fruit may not be the best location for the production of vegetables. Therefore, most farmers, particularly the larger ones, tend to produce either fruits or vegetables, and the cooperatives they organize tend to market one or the other.

The size and scope of the marketing operations of fruit and vegetable cooperatives are as varied as the types of commodities they handle. Some own few assets, and simply act as a bargaining agent for a group of grower-members in negotiating a price with buyers. Others own and operate large processing facilities to prepare finished products for grocers' shelves, and are large enough to be ranked among the Fortune 500. In between are cooperatives performing varied levels of marketing functions to bring a fruit or vegetable product from field to consumer. These range from simple sorting and assembly of a product for the next stage in the marketing channel, to the complex array of handling, processing, and distribution functions involved in marketing a branded consumer product.

While cooperatives perform a variety of market functions, they are no different from what must be performed by any other business. Cooperatives are not unique in the functions they perform, but in the manner and philosophy in which they are performed.

A cooperative is a business organization owned and controlled by the grower-members who use it. The purpose of the business is to improve members' economic well-being by marketing products, obtaining supplies, and/or providing services that individual growers could not obtain on their own. Cooperatives are unique in that, unlike individual proprietorships, partnerships, and investor-owned corporations that operate for the benefit of their owners as investors, cooperatives operate for the mutual benefit of their owner-members as users of its services. This is the user-owner principle, one of three principles that distinguish cooperatives from other businesses. The second is the user-control principle in which the cooperative is controlled by those who use it. The third is the user-benefits principle in which the benefits generated by the cooperative are distributed to users on the basis of their use.

Forming a cooperative represents an agreement among a group of farmers to act collectively in marketing their products or providing some other needed service. This requires relinquishing some control over their products to a central organization. The

benefits of collectively marketing their products versus each doing so individually are that they: (1) fulfill the need for, or replacement of, a marketing service not available, (2) improve growers' bargaining position with buyers in that a greater portion of production is controlled by a single seller, (3) facilitate economies of scale in handling and processing grower-member products, (4) provide for better servicing large buyers by pooling smaller quantities of product into larger lots for more economical sourcing and shipment, and (5) reduce price risk for the individual grower by spreading that risk over a larger number of units.

Some incentives to form a cooperative are also unique to fruit and vegetable production. First and foremost is the perishability of most fruit and vegetable crops, limiting both by time and distance the market options available to individual growers. Once a crop is harvested, growers must bring the crop to market immediately, and buyers may be tempted to take advantage of the situation by adopting a "take it or leave it" stance in offering a price. Cooperative action on the part of growers is a way to discipline the market and reduce the incidence of unfair trading practices, particularly in fruits and vegetables. As buyers take advantage of their superior bargaining position, many growers feel compelled to form cooperatives to provide their own market outlets. Growers formed the first fruit and vegetable cooperatives in the latter half of the 19th century, citing the need to improve their bargaining position as one of the main reasons for forming those cooperatives.

Fruit growers may have the incentive to form a cooperative due to the perennial nature of fruit production. Fruit growers must make a long-term investment in orchards that may not reach maturity for 5 years or more. In this case, growers need greater assurances of long-term market outlets than annual vegetable growers who can rotate out of production more easily. Fruit growers have frequently found cooperatives their best means of obtaining marketing services necessary for ensuring returns on the long-term investments associated with fruit production. Also, the production of many fruits is prone to periodic gluts because with perennial production, reaction to supply comes much more slowly than with an annual vegetable. Fruit growers have formed cooperatives expressly for creating alternative uses for excess supply, such as processing operations.



In this California scene around the turn of the century, Limoneira Ranch hands load wooden crates of citrus bound for eastern markets such as the New York auction market below.



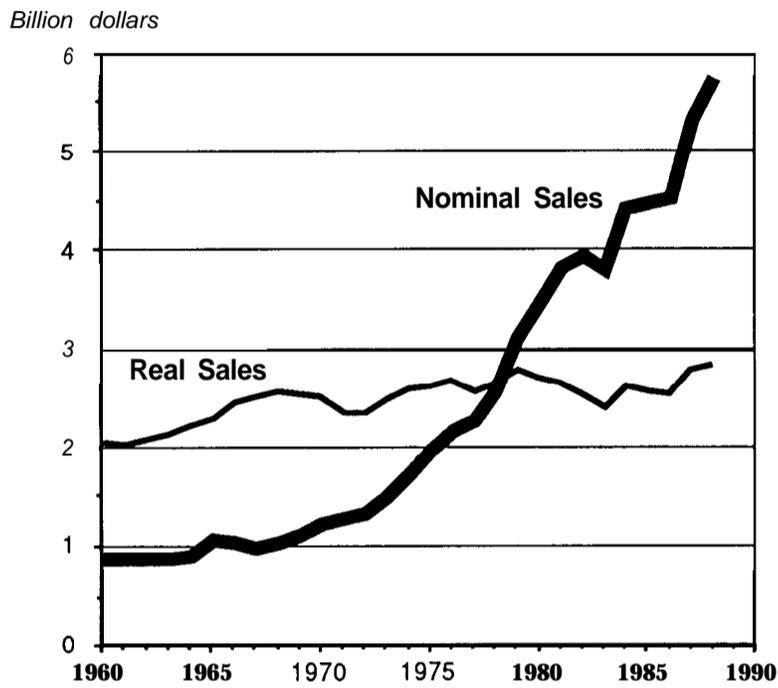
Cooperative Business Profile

Sales of Fruits and Vegetables

Fruits and vegetables, after dairy and grain, are the third largest commodity area for cooperatives in terms of net sales. In 1988, cooperatives had a net business volume for fruits and vegetables of \$6.6 billion, up from \$6.15 billion in 1987. Cooperative sales have risen steadily since 1960 (fig. 1). Even in terms of real dollars (adjusted for inflation), cooperative sales of fruits and vegetables have performed better than the overall rate of inflation since 1960. The nearly constant level of real sales from year to year means cooperatives were able to expand fruit and vegetable sales by at least the rate of inflation.

Consumption of fruits and vegetables has risen since 1960 as consumers have become more concerned about health and nutrition. Fruits and vegetables are viewed as healthful, and a portion

Figure I-Cooperative Sales of Fruit and Vegetables, Nominal Versus Real, 1960-87



of cooperative sales performance can be attributed to this. While cooperatives are present in the marketing of almost all fruit and vegetable products, they are among the industry leaders for some. Fresh citrus, fruit juices, raisins, and prunes are just a few of the product areas cooperatives are not only prominent in, but also in which they played an active role in stimulating and maintaining demand. So while cooperatives have benefited from the increase in demand for many fruit and vegetable products, they can also be pointed to as having an active role in expanding demand for some products.

Fruit and Vegetable Cooperatives

Cooperatives are classified by their dominant form of business or commodity handled. For a fruit and vegetable cooperative to be identified as such, at least 50 percent of its business volume must come from marketing fruits and vegetables. While there are other types of cooperatives marketing fruits and vegetables, they are relatively few in number.

In 1988, there were 306 cooperatives classified as fruit and vegetable, down from 312 in 1987. From 1915-year of the first national survey of farmers' cooperatives-to 1930, the number of fruit and vegetable cooperatives rose steadily. Since 1930, there has been a steady decline in the number of fruit and vegetable cooperatives (fig. 2.1). Compared with all marketing cooperatives, the change in fruit and vegetable numbers has followed fairly closely the change in the number of other cooperatives, although since 1960 the number of fruit and vegetable cooperatives has declined at a somewhat faster rate (fig. 2.2). The number of fruit and vegetable cooperatives declined by more than 55 percent from 1960 to 1988, while all other marketing cooperatives declined by a little more than 40 percent for the same period. However, cooperative sales of fruits and vegetables increased by more than 550 percent while all other marketing cooperative sales increased 343 percent. The food industry in general is moving toward fewer and larger organizations. Cooperatives are moving in the same direction, particularly for those in food manufacturing. Fruit and vegetable cooperatives are among the more active in manufacturing and branded products. One reason is that while their numbers have declined faster than their counterparts in other commodity areas

Figure 2.1-Number of Fruit and Vegetable Cooperatives, 1915-88

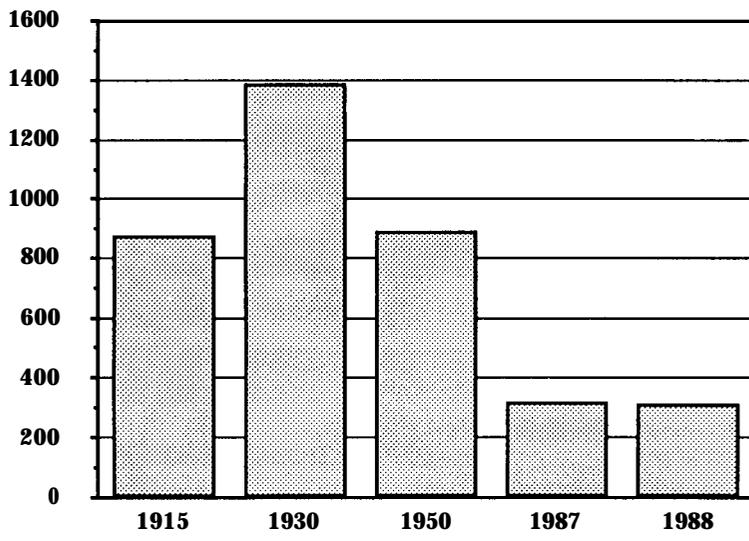
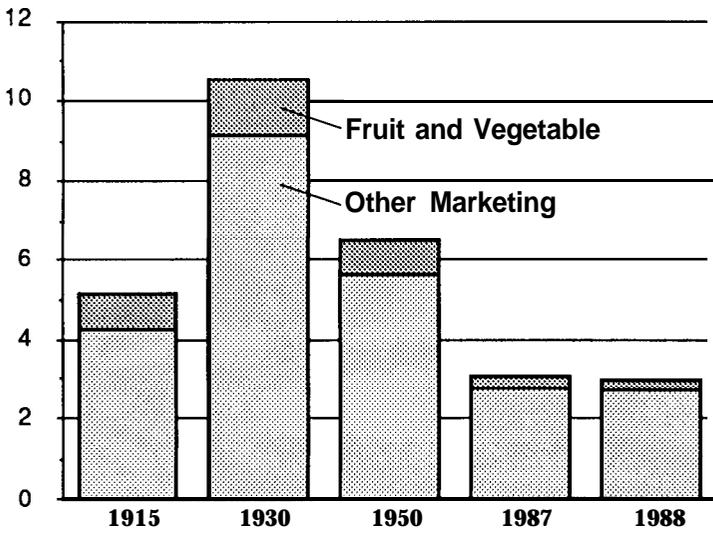


Figure 2.2-Number of Cooperatives, Fruit and Vegetable versus Other Marketing, 1915-88

Thousands



their sales have increased at a higher rate.

As the number of cooperatives declined, many organizations became larger through merger or outright acquisition of other cooperatives. Since 1960, total cooperative sales of fruits and vegetables have increased and the number of cooperatives decreased, with the percentage increase in sales being more than 3 times the decrease in fruit and vegetable cooperatives (fig. 3). The net result was the average annual sales volume per cooperative increasing steadily from more than \$1 million in 1960 to more than \$21 million in 1988. Although sales per cooperative was expected to increase as overall fruit and vegetable sales increased, a portion of the increase is the result of one or more cooperatives merging.

Though the average sales stood at more than \$21 million in 1988, more than three-quarters of the cooperatives marketing fruits and vegetables had sales below the average (fig. 4). The dispersion of sales among cooperatives reflects the diversity of functions performed and products marketed by cooperatives. In terms

Figure 3-Cumulative Percent Change in Number of Fruit and Vegetable Cooperatives and Cooperative Sales, 1960-87

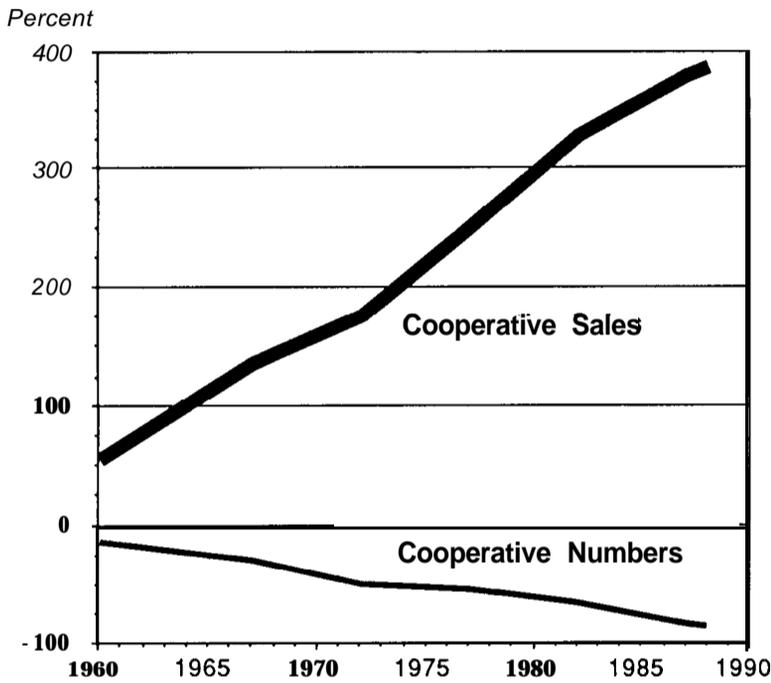
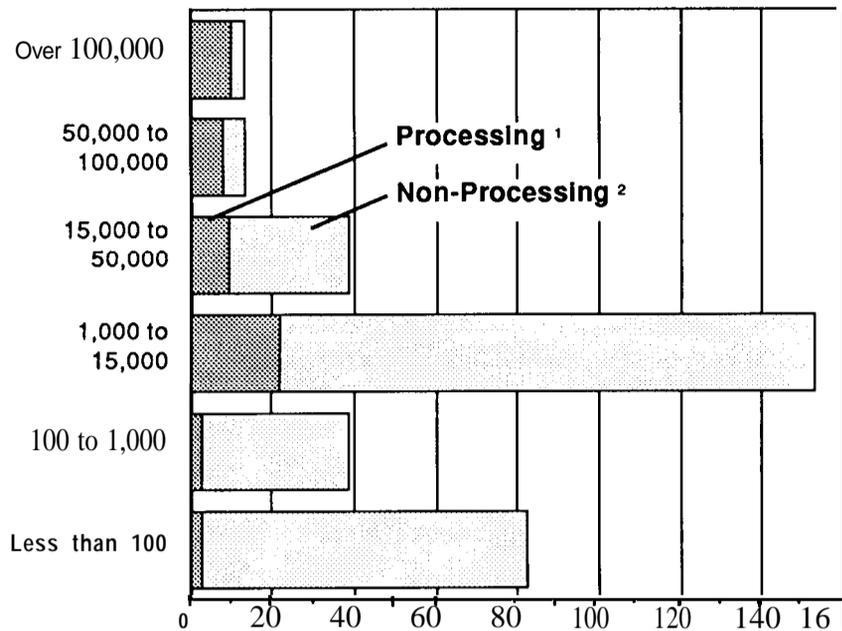


Figure 4-Number of Fruit and Vegetable Cooperatives Per Sales Classification, 1987

Thousand dollars



¹ Cooperatives selling processed products

² Cooperatives selling to the fresh market or to processors

of absolute numbers, most cooperatives perform only a few functions as in small scale assembly and packing operations. As cooperatives integrate further into the food system, they tend to achieve a higher level of sales, particularly if they market branded products or add value by processing. Ten cooperatives had more than 60 percent of the 1987 cooperative share of fruit and vegetable sales. Most are large organizations with established national brands or food manufacturing operations.

Membership

A fruit and vegetable cooperative member is a grower who joins the organization to market their production. Growers are the owners and sole stockholders of the cooperative. In addition to the price received for each unit of raw product delivered, the grower also shares in the net profits or losses of the cooperative. Instead

of acquiring shares of stock by direct purchase as in an **investor-**owned firm with dividends paid per unit purchased, “dividends,” or net returns, to members of a cooperative are typically on a **per-**unit basis of volume delivered.

Unlike stockholders of an investor-owned firm who vote on the basis of number of shares held, cooperative voting is typically on the basis of one vote per member regardless of volume delivered. In some cases, votes may be based on volume of business, although there are limits to the number of votes a member can acquire. This ensures equity because no one member or group of members has a disproportionate vote in cooperative matters.

In 1987, membership in fruit and vegetable cooperatives stood at 64,093, up from 61,990 in 1985. The slight increase is a modest reversal of a steady drop in membership since a high of 218,000 in 1930, also the peak year for the number of fruit and vegetable cooperatives. Since cooperative membership is composed of individual farmers, as total farmer numbers declined since the 1930's, the pool of potential members steadily shrank. From 1930 to 1987, the number of farms in the United States fell about 65 percent, and fruit and vegetable cooperative membership fell by just under 70 percent, so membership has followed consistently the change in total farm numbers.

Although the number of farms has declined steadily since the 1930's, average farm size has increased over the same period. Diversity of production has led some fruit and vegetable farmers to be members of more than one cooperative, particularly on the west coast where a wide variety of fruits and vegetables are grown in significant quantities. A California producer may be a member of a bargaining cooperative for peaches and a processing cooperative for pears. A grower may also be a member of separate cooperatives performing different functions for the same commodity. In Washington, many apple growers are a member of a large juice processing cooperative for their culled or low-grade apples and another cooperative to sell their higher quality apples to the fresh market.

Because many growers belong to more than one cooperative, and fruit and vegetable cooperative membership has declined at a slower rate (70 percent) than number of cooperatives (80 percent), the net effect has been a steady rise in average membership per fruit and vegetable cooperative (fig. 5).

Regional Profile

Fruit and vegetable cooperatives operate in almost every State, and are similar in many ways in terms of operating procedures and goals. However, production, geographical, and historical differences result in differences in activities and size from region to region.

Location of Cooperatives

As noted, there has been a steady decline in the number of fruit and vegetable cooperatives. The reduction in cooperative numbers has been spread evenly across regions, with only Appalachia and Hawaii experiencing a net gain and constant numbers, respectively, from 1979 to 1987 (fig. 6).

While a decline in fruit and vegetable cooperative numbers has occurred in almost every region, there are differences in the

Figure 5—Membership Per Fruit and Vegetable Cooperative, 1915-87

Members per cooperative

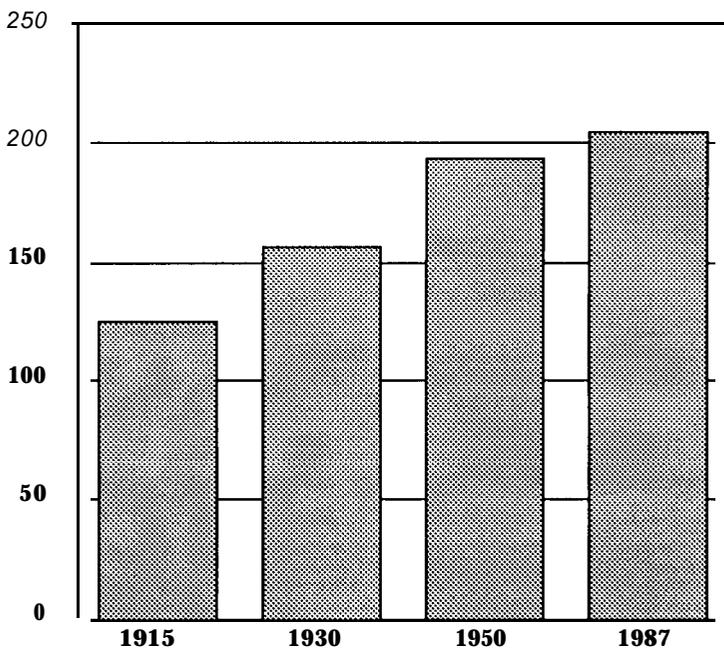
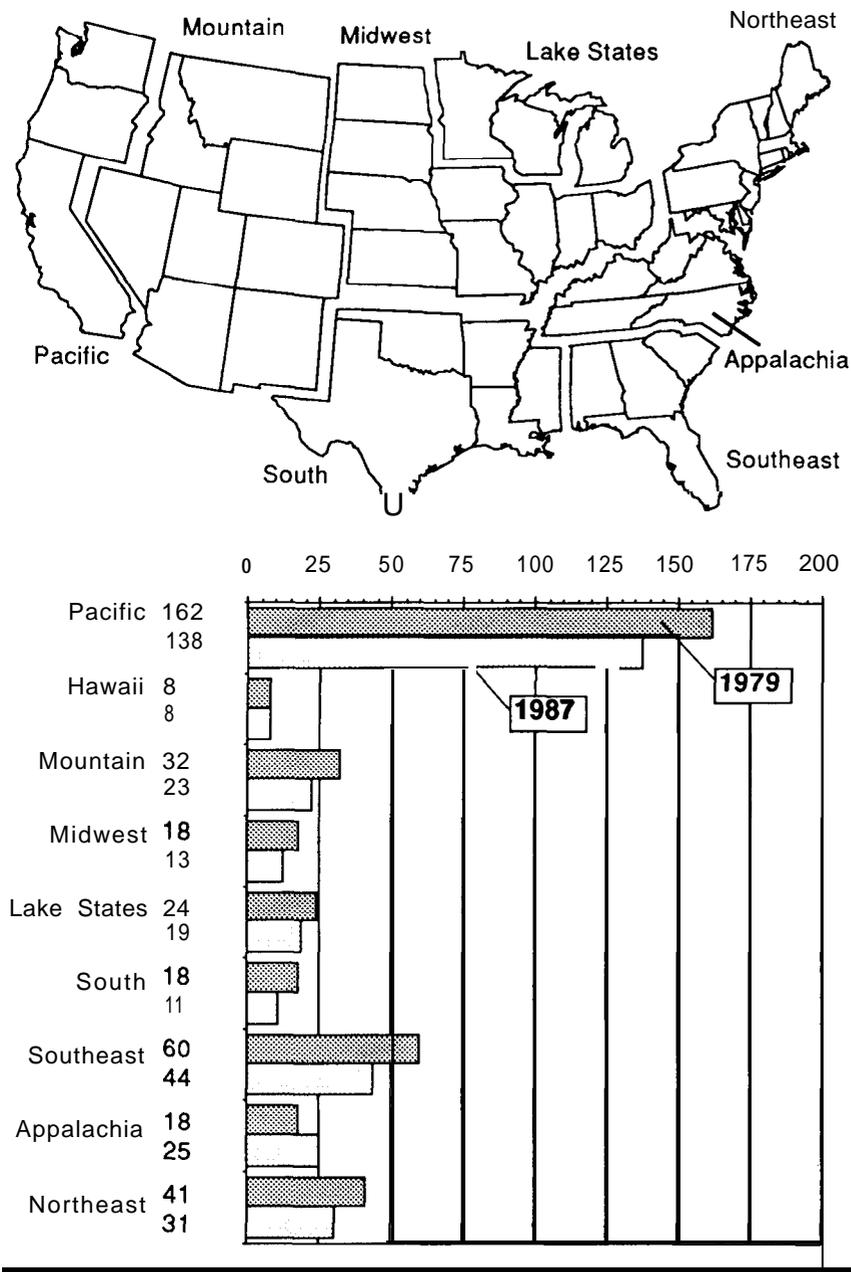


Figure 6-Number of Fruit and Vegetable Cooperatives by Region, 1979 and 1987



concentration of cooperatives across regions. The Pacific region (California, Oregon, and Washington) is by far the dominant region with more than 44 percent of all fruit and vegetable cooperatives in 1987. As the leading production area of fruits and vegetables, both in terms of volume and variety of crops, it would be expected that this region would have the highest level of cooperative activity. The Southeast (Alabama, Florida, Georgia, and South Carolina) is the second leading region with more than 14 percent of the cooperatives and a leading fruit and vegetable production area. Together, the Pacific region and the Southeast account for almost 60 percent of the fruit and vegetable cooperatives.

Pacific- With California, by far the Nation's leading producer of fruits and vegetables, and Washington and Oregon, the leading tree fruit States, the Pacific region has the largest single concentration of fruit and vegetable growers in the country. Cooperatives handle almost every type of fruit and vegetable grown in the region, including citrus, peaches, pears, avocados, apricots, grapes, raisins, tomatoes, lettuce, broccoli, cauliflower, and peppers. Some of the larger fruit and vegetable cooperatives are there, such as Sunkist Growers, Inc., Van Nuys, CA, for citrus; Tri/Valley Growers, San Francisco, CA, for canned fruits and vegetables; and Tree Top, Inc., Selah, WA, for fruit juice.

Southeast- The major commodity in the Southeast in terms of volume is Florida citrus, and Florida is the Nation's leading producer of citrus and citrus juice products. Thirty-seven of the 44 cooperatives in the Southeast are in Florida, and about two-thirds of Florida cooperatives market citrus. Among the largest are Seald-Sweet Growers Inc., Vero Beach, FL, the largest marketer of fresh Florida citrus, and Citrus World, Inc., Lake Wales, FL, the largest cooperative processor of Florida orange juice. Cooperatives are active in marketing most vegetables produced in Florida, including tomatoes, sweet corn, and celery. Other Southeast States have cooperative activity on a smaller scale. South Carolina cooperatives market fresh peaches and apples, and Georgia cooperatives market blueberries, tree fruits, and vegetables.

Northeast- Some of the earliest cooperative activity in the country occurred in the Northeast with the formation of fruit and vegetable auction market cooperatives to service growing population centers. Today, the Northeast is home to some of the larger processor cooperatives, such as Ocean Spray Cranberries, Inc., Lakeville, MA; National Grape Cooperative Association, Inc.,

Westfield, NY, with its Welch's brand; and Knouse Foods Cooperative, Inc., Peach Glen, PA, which produces a variety of fruit products. Cooperatives in the Northeast market Maine potatoes, New York grapes, Massachusetts cranberries, New Jersey vegetables, and apples and pears from New York and Pennsylvania.

Appalachia- The only region to show a net gain in the number of cooperatives since 1979, likely the result of efforts to improve the economic conditions in rural areas, was Appalachia (Virginia, West Virginia, North Carolina, Kentucky, Tennessee). Most of the farming operations in this region are fairly small. In many ways, they resemble the situation earlier in the century when the number of cooperatives was increasing: many small farmers and few market alternatives. Fruit and vegetable production has increased fairly recently as farmers diversified out of tobacco. With few market alternatives in place for their products, farmers formed cooperatives, which are now fairly common in Appalachia. Although each cooperative is a relatively small-volume marketer of vegetables, collectively they have the potential to be a major supplier of fresh vegetables to much of the eastern United States. Cooperatives market apples from North Carolina and Virginia, and vegetables such as tomatoes, peppers, cucumbers, broccoli, and cabbage from Virginia, North Carolina, Kentucky, and Tennessee.

Mountain- In general, most States in the Mountain region produce only a few varieties of fruits and vegetables concentrated in a few specific areas. Major commodities marketed by cooperatives in this region are Idaho and Colorado potatoes, Colorado onions and tree fruits, and Arizona citrus. Potato Growers of Idaho, Inc., Blackfoot, and Colorado Potato Growers Exchange, Denver, are among the Nation's leading marketers of potatoes, and Arizona citrus cooperatives are members of Sunkist Growers, Inc., the leading marketer of fresh citrus. Montana, Utah, and New Mexico have five cooperatives among them, marketing cherries, canned fruits and vegetables, and fresh produce.

Lake States- Much of the Lake States' cooperative activity is centered in Michigan with 16 of the region's 19 cooperatives there. Michigan is a major producer of apples, peaches, pears, plums, grapes, blueberries, and is the Nation's leading producer of tart cherries. Cooperatives are active in marketing most Michigan fruit products, and include Cherry Central Cooperative, Inc. of Traverse City, the Nation's largest processor of canned and frozen tart cherries, and Michigan Blueberry Growers Association

of Grand Junction, a leading blueberry marketer. In vegetables, Michigan Celery Promotion Cooperative of Hudsonville, Michigan Onion Producers of Grant, Chief Wabisis Potato Growers Co-op Association of McBrides, and Great Lakes Mushroom Cooperative of Warren are among the leading vegetable marketing cooperatives. In Minnesota and Wisconsin, most cooperative activity is in potatoes and vegetables.

Midwest- Farming in the Midwest region has traditionally been dominated by feed grains, dairy, and livestock. However, midwestern farmers are looking at alternatives to traditional crops, and vegetables are being considered as a way to diversify. If vegetable production does increase significantly in the Midwest, market outlets will be needed, and cooperatives would be one viable method. States with significant fruit and vegetable production are Ohio and Illinois. Ohio cooperatives are active in marketing tomatoes, pickles, potatoes, and some tree fruits, and Illinois cooperatively markets onions, tree fruits, and mixed vegetables. North Dakota has a major cooperative marketer of potatoes.

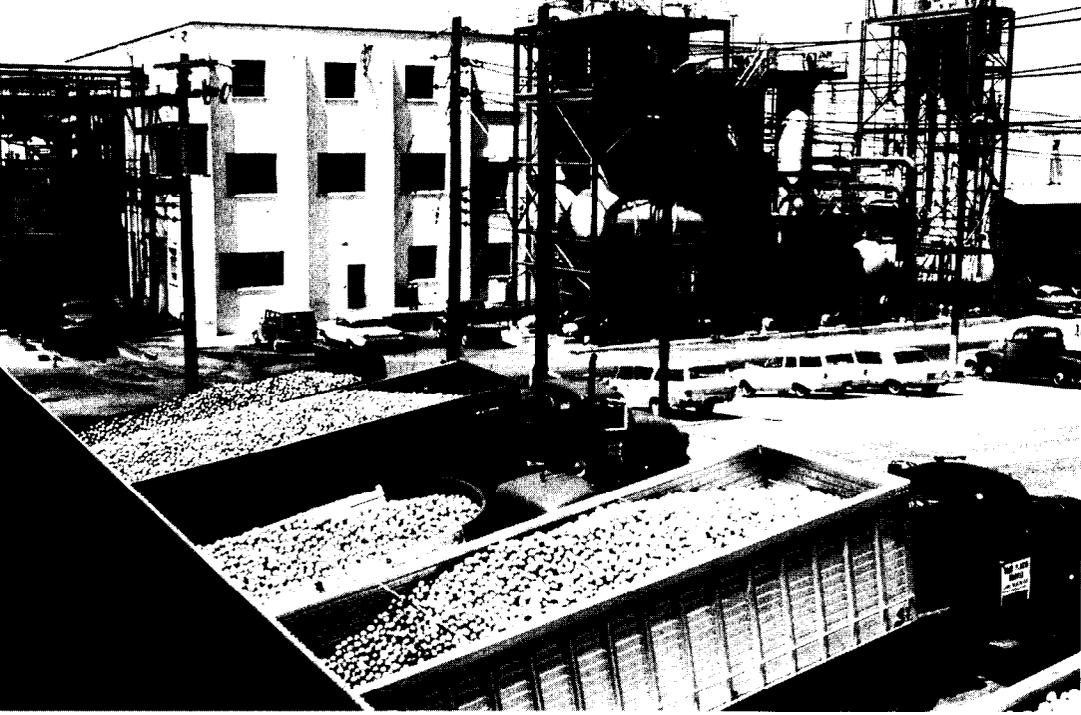
South- Eleven fruit and vegetable cooperatives operate in this region. Cooperatives in Louisiana and Mississippi are small fresh vegetable operations. In Texas, most cooperative activity is in citrus, especially grapefruit. In Arkansas, cooperatives market blueberries and vegetables.

Hawaii- The number of cooperatives in Hawaii has remained constant at eight from 1979 to 1987, reflecting entry into and exit out of business by several cooperatives. Hawaiian cooperatives handle tropical commodities like pineapples, guava, and papaya, in addition to the "traditional" vegetables found in the continental United States, such as tomatoes, cabbage, celery, and peppers. Most Hawaiian cooperative sales are in fresh form.

Regional Sales Distribution

Cooperative sales of fruits and vegetables, though spread across almost every State, is concentrated in three regions. The Pacific, Northeast, and Southeast regions accounted for almost 88 percent of total sales in 1987 (fig. 7). Since these regions account for the majority, or in some cases all, the U.S. production of many fruits and vegetables, it is not surprising that 47 of the 50 largest cooperatives were headquartered in these three regions.

Comparing the change from 1979 to 1987, the trend has



Florida citrus growers have made massive investments in facilities that process single strength juices, concentrates, sections, salads, dried pulp for cattle feed and by-products from oranges, grapefruit, and tangerines. This Citrus World plant is at Lake Wales, Fla.



been towards increasing concentration of sales in the Pacific and Northeast regions, with the Southeast declining and the other regions either declining slightly or remaining constant. The Pacific region, and California in particular, has experienced a steady rise in fruit and vegetable production. Accordingly, cooperatives in the Pacific region have experienced steady increases in sales as production expanded.

The Northeast also experienced a significant increase in share of cooperative sales, but for a different reason than the Pacific. Fruit and vegetable production in the Northeast stayed fairly constant, with some areas experiencing declines as urban expansion reduced the amount of available farmland. However, a number of food processing cooperatives in the region enjoyed tremendous sales growth from 1979 to 1987. In particular, Ocean Spray and its line of cranberry-base fruit juices, and National Grape Cooperative Association with its category-leading Welch's line of grape products, experienced significant growth to become not only two of the larger fruit and vegetable cooperatives, but also leading processors of fruit and vegetable products.

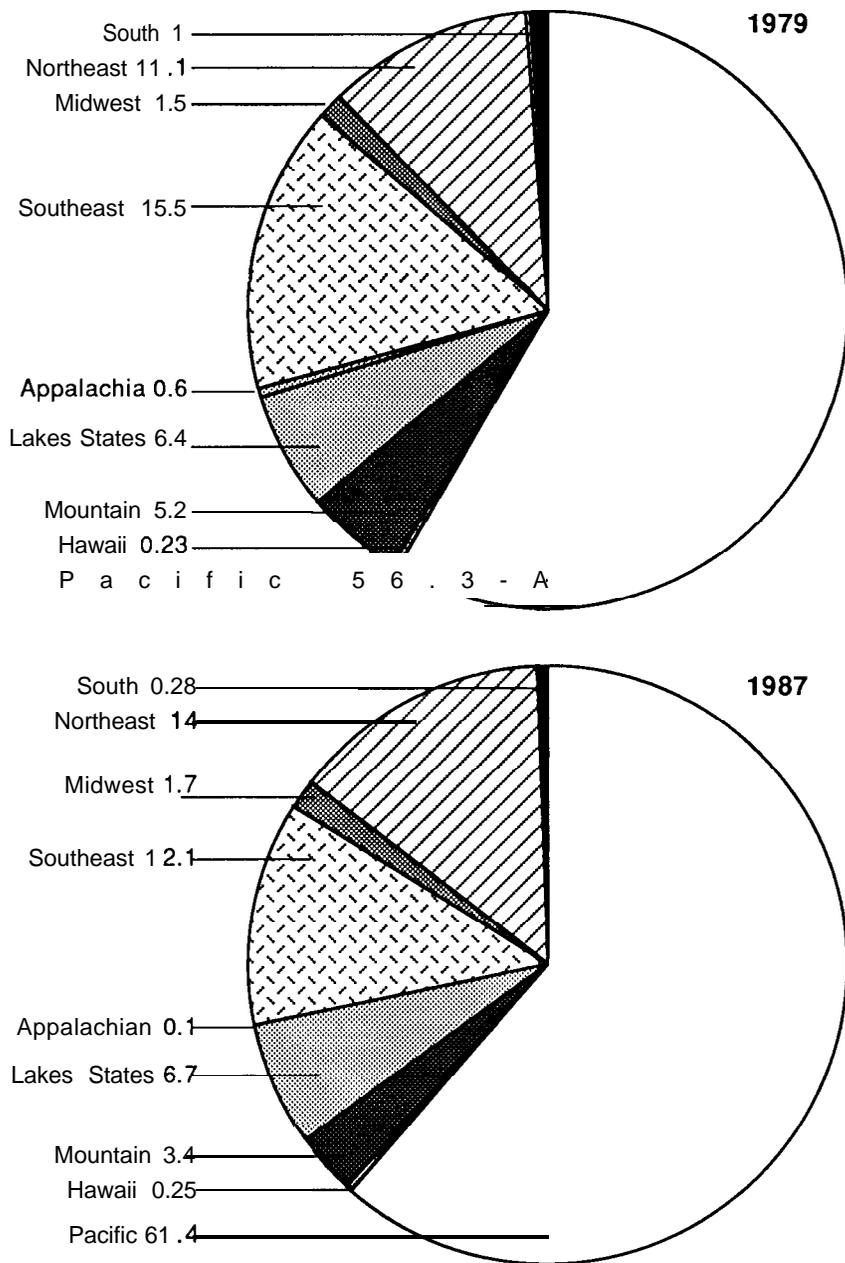
In the Southeast, much of the decline in cooperative share of sales was due to two factors. The first was the decline in both production and product quality for many fruits and vegetables, particularly citrus, during years when severe freezes hit the region. The second has been increased competition from imported concentrated orange juice. Since citrus is the leading commodity in the Southeast, many cooperatives have felt the impact of that competition.

Organizational Structures

When fruit and vegetable cooperatives first formed in the late nineteenth century, the initial organizational structure was fairly basic: growers formed a local cooperative to assemble their products for the fresh market. As the food industry became more complex and increased in scale, fruit and vegetable cooperatives evolved, and their organizational distinctions became less clear. As a result, a range of organizational types exist.

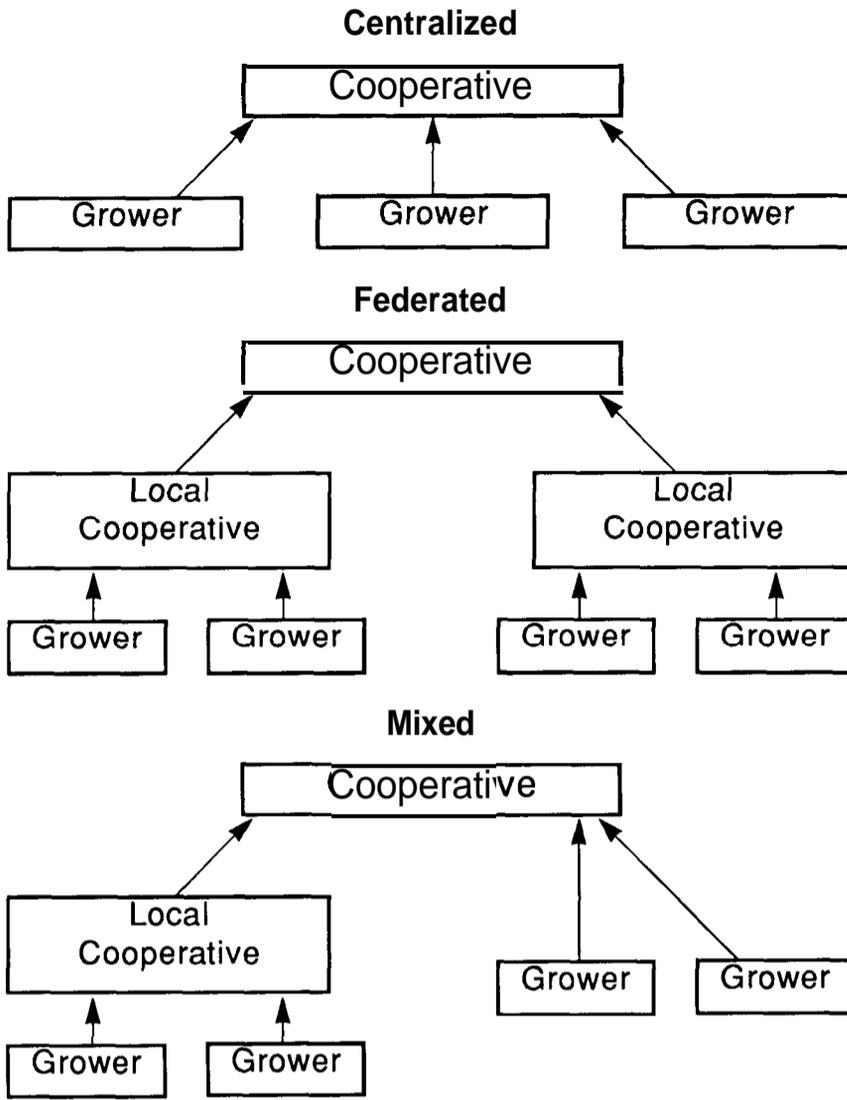
In terms of organizational structure, most fruit and vegetable cooperatives are centralized (fig. 8). Centralized cooperatives comprise direct farmer membership where control and volume flow from members to the cooperative, and services and

Figure 7—Percent of Cooperative Fruit and Vegetable Sales by Region, 1979-1 987



Totals do not add to 100% because of rounding.

Figure 8—Cooperative Organizational Structures



patronage refunds flow directly back to members. Centralized fruit and vegetable cooperatives may extend beyond a localized production area to serve members in several counties, regions, or States. New membership may be added to increase volume, serve larger customers, and bring a greater portion of the crop into the cooperative. It is believed that cooperatives better contribute to an

orderly market when the majority of any one crop going to market is regulated by a single cooperative.

New membership may also be added to support diversification of the product mix, as in the case of Ocean Spray, which added citrus juices to its product line and recruited citrus producers as direct members. Once a cooperative of only cranberry producers, as Ocean Spray diversified so did its membership.

Less common for fruits and vegetables is the second type of organizational structure (fig. 8), a federated organization that serves a membership composed of local or regional cooperatives. Local cooperatives are, in turn, composed of grower-members. In federations, service and patronage refunds flow to member cooperatives who then return them to their farmer-members. Control of the federation lies mostly with member cooperatives through a board of directors elected from grower-members. Often the federation simply acts as a selling agent for the locals, with most of the tangible assets and ownership of the commodity remaining with the local cooperatives.

Federations enable smaller cooperatives to join to improve their marketing efforts and achieve a lower unit cost, better serve the needs of large-scale buyers, and strengthen the bargaining position of individual growers and their local cooperatives. Most federated fruit and vegetable cooperatives are large-volume marketers, although there are examples of federated cooperatives on a smaller scale. Federated cooperatives may be tied by a single commodity, like citrus for Seald-Sweet Growers and Citrus World, or a variety of commodities such as Sun-Diamond Growers of California, Pleasanton, which serves nut, raisin, date, and prune growers.

Some fruit and vegetable cooperatives use a mix of centralized and federated organizations (fig. 8). In a “mixed” organization, growers are members either by joining the federated cooperative as a direct member or by joining a local cooperative that in turn is a member of the federated organization. In terms of operating procedures and treatment of members, mixed organizations are essentially no different than their centralized or federated counterparts.

An example of a mixed organization is Sunkist Growers Inc., where direct farmer-members, local cooperatives, and packinghouse operations are linked. Farmers may join Sunkist directly with membership in a local cooperative packinghouse that is also

a member of Sunkist, or as a direct member that uses an independent packinghouse licensed by Sunkist. Membership is open to any citrus grower, who may join it without also joining a local packing cooperative.

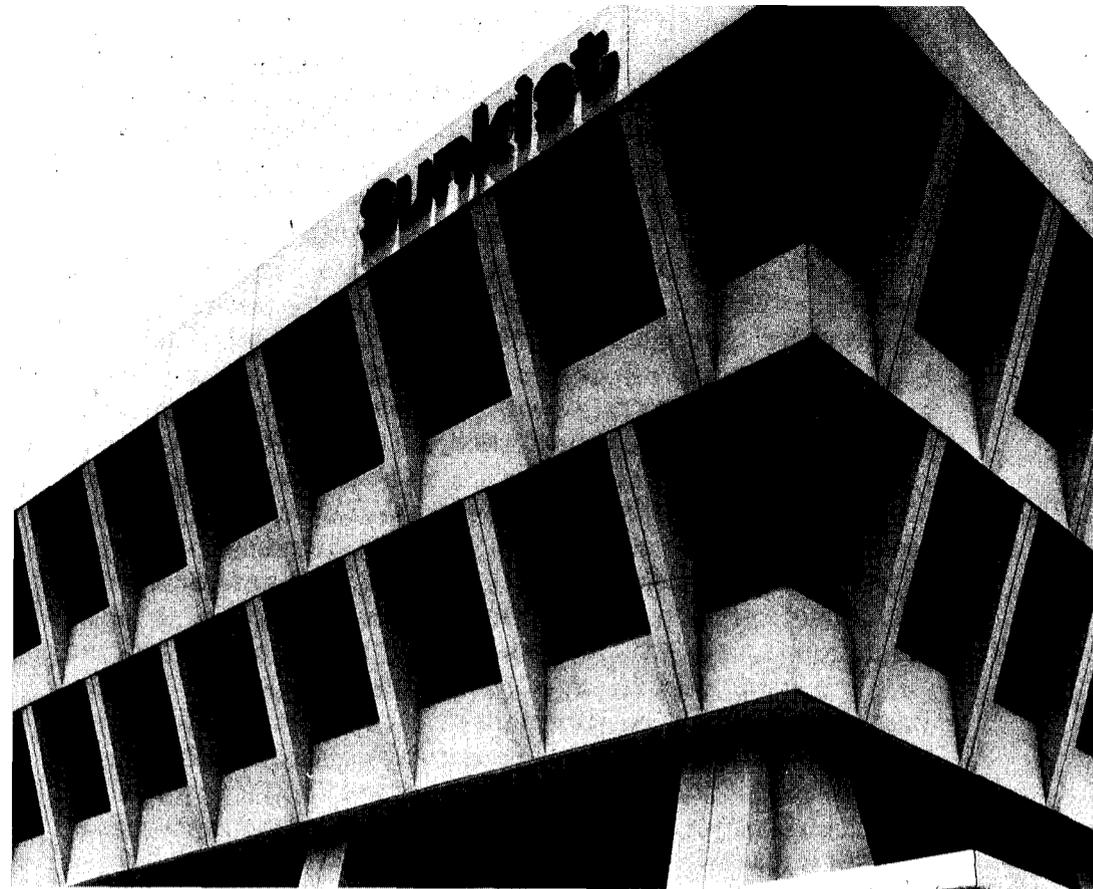
Although direct membership by individual growers is a trait of the centralized structure, Sunkist is mostly a federated organization; the central Sunkist organization provides marketing and juice processing services only. The individual affiliated packinghouse, whether it is a Sunkist member cooperative or a licensed agency, is responsible for its own operations and margins and losses. In a centralized-type organization, the packinghouse costs and returns would be aggregated and shared by all grower members.

The Sunkist case is just one example of how cooperative structures can differ. For example, in the citrus industry, in addition to the Sunkist model, there is Golden Gem Growers, Umatilla, FL, a large centralized cooperative, and Citrus World, Inc., a large federation.

Regardless of the organizational structure, the same basic functions are performed. Given the diversity of fruits and vegetables and their product forms, no one structure may be right for all growers and their cooperatives. As fruit and vegetable cooperatives evolve, they learn more about themselves and their needs, and alter their organizational makeup.

Cooperative Marketing

Although the term “marketing” is often associated with the act of selling alone, a marketing organization is more than a sales staff, and typically performs an array of functions involved in transforming raw product into a finished consumer good. Fruit and vegetable cooperatives can be divided into two types: those physically handling and processing raw product for market and hence called “marketing” cooperatives; and those formed solely to bargain for terms of trade with first-handlers and processors of fruit and vegetable products, called “bargaining” cooperatives. Marketing cooperatives are by far the most common and are thought of as “operational” cooperatives because of their direct involvement in handling, grading, processing, canning, and freezing raw fruit and vegetable products. These cooperatives usually take title to the raw product, own and operate the handling and processing facilities, and pool the commodities of members in the



Sunkist Growers, Inc., Sherman Oaks, Calif., a pioneer citrus marketing cooperative, began advertising campaigns in 1908 and began moving fresh citrus overseas prior to World War I.



physical marketing operation.

Conversely, bargaining cooperatives, generally do not take title of the raw product, own few physical assets in terms of plant and equipment, and instead act as the grower-members' sales agent in negotiating with handlers and processors of their products.

Bargaining

Bargaining associations have long had a presence in the fruit and vegetable industry, coming into existence whenever growers of a commodity received prices below their costs of production, or were forced to accept other adverse terms of trade. Product perishability often limited growers' options to a few local handlers or processors. By uniting in a bargaining association, growers could enhance their bargaining power to favorably influence terms of trade in transactions with processors. Members used the bargaining association as a means to represent their collective views and accomplish their collective goals concerning prices and terms of trade.

The major Federal legislative acts relating to farm bargaining are the Capper-Volstead Act of 1922, the Agricultural Marketing Agreement Act of 1937, and the Agricultural Fair Practices Act of 1967. These laws permit producers to act together and protect themselves from certain unfair practices. None of the Federal legislation, however, promotes and implements the adoption of practices to improve the climate for bargaining. Federal legislation lacks provisions for exclusive agency bargaining, mediation, or arbitration, and the requirement for negotiators to bargain in good faith. Without these provisions, control over supply, and particularly the free-rider problem, can be difficult to achieve.

Many States have enacted legislation prohibiting certain unfair trade practices and discrimination against producers who have voluntarily joined a bargaining association. While this legislation facilitates continued good-faith bargaining on the part of processors and handlers, it did not address the free-rider and supply problems. A "free-rider" is a producer who benefits in the marketplace from the efforts of the bargaining association but is not a member and does not share the costs of supporting the association. Many States have instituted legislation to help bargaining associations deal with supply and free-rider problems.

Bargaining History

The earliest known grower cooperative effort was in 1867 when the Fruit Growers Union was formed in Hammonton, NJ, to deal with local over-expansion of fruit production and periods of glutted markets. Originally acting as the members' representative in negotiations with metropolitan produce buyers, the Union eventually grew into a full-fledged marketing cooperative engaged in shipping, grading, and storing raw product.

The early 1920's marked the beginning of bargaining associations in processed products. California Canning Peach Growers, Lafayette, CA, was organized in 1921 to represent 760 peach growers who agreed to market their crops cooperatively to canners. Low prices, unfair grade standards, and delay in payments for fruit were the principal reasons behind the growers' decision to organize. Today, the California Canning Peach Association represents more than 60 percent of all peach production for canning.

Attempts were made to organize fruit and vegetable producers to bargain with handlers and processors during the 1920's and 1930's. The combination of the Depression and the relative inexperience of producers with cooperative bargaining caused many efforts to fail. Those associations that weathered the formative years of the 1920's and the Depression found themselves fairly well established in the 1950's. The postwar period was a time of rapid growth in food manufacturing and distribution. Since almost all fruit and vegetable bargaining is with food processors, use of bargaining associations rose along with the overall growth in the processed food industry. From 1954 to 1987, the number of fruit and vegetable bargaining associations increased from 9 to 28, representing a variety of products, including raisins, tomatoes, peas, pears, potatoes, and prunes.

Bargaining Practices

Fruit and vegetable bargaining associations represent members in negotiations over the terms of trade. Emphasis is placed on terms of trade rather than price only because other considerations such as payment provisions, delivery point, and quality may offset a favorable price. In their purest form, bargaining associations neither take title nor handle the product, but may require members to sign exclusive marketing agreements designating the association as sole sales agent. The bargaining association has an

agreement with the processor to provide representation for producer-members, who sign individual contracts with the buyer, the provisions of which have been determined by negotiations between the bargaining association and the buyer. Producers deliver their product directly to buyers, who take title. The association may provide additional services such as verification of grades and weights. But for the most part, these functions are subordinated to negotiation activities. The fact that almost all bargaining associations own few physical assets beyond an "office and a phone" is indicative of the emphasis on negotiations.

Some bargaining associations differ in that they take title to their members' product. In this case, the grower has a marketing agreement with the bargaining association only, and it is the bargaining association that contracts directly with the buyer. Such an association may operate one or more pools, divert products to alternate uses, and average out returns to the members of the pool. An example of this type of association is the California Canning Peach Association. By taking title to the product and using a multiple pool system, the association ensures growers a ready market for all their production, despite differences in variety, quality, and location. The association may at times arrange for custom processing, not only as an outlet for surplus production but also to enhance its bargaining position with processors during negotiations. Although taking title can increase risk and costs for a bargaining association, the association benefits from increased services to buyers and is in a stronger position to bargain with processors.

Some bargaining associations evolve from related activities in a particular industry. The California Tomato Growers Association, Stockton, began as a service organization to the California tomato industry. In assisting members with cultural and farming operations, the association became a reliable source of information on processor buying activities, keeping members informed of prices offered by processors. The association took a leadership role in establishing uniform grade standards, and also represented growers in legislative matters. In working with processors and buyers, the association sometimes met stem opposition from tomato canners. Each time the association was frustrated in reaching a reasonable grower objective, particularly regarding price, interest increased in forming a bargaining association. In 1973, the California Tomato Growers Association announced its intention to enter price bargaining, and by 1987 came to represent

more than 22 percent of the world's tomato volume. As a bargaining association, it has been able to initiate a number of improvements in quality standards and delivery terms that have benefited growers and processors alike.

Bargaining associations are often in a position to provide leadership in planning and implementing market development programs due to their concentration of grower efforts and ties with the industry. While marketing cooperatives are concerned with demand for specific products and brands, bargaining associations are more concerned with overall demand for a commodity. Bargaining associations are more likely to be active in market development when they represent a significant share of the crop produced in a given area. The more growers actively support a promotion program, the less concern there is with "free riders." Apricots, peaches, and pears are examples of crops with bargaining associations actively involved in market development.

Conditions for Successful Bargaining

Although some requirements for successful bargaining are endemic to the production and marketing of a specific fruit or vegetable, the following are the primary conditions associations should strive to satisfy:

Single Commodity Representation- Fruit and vegetable bargaining associations are most effective when dealing with a single commodity. Organizations such as the Michigan Agricultural Cooperative Marketing Association, Inc., may represent a number of crops, but separate commodity committees bargain for each crop independently.

Buyer Recognition- A bargaining association can be effective only if it gains the recognition of the firms with which it seeks to bargain. It can do this best when it demonstrates substantial market power.

Realistic Bargaining Goals- Fruit and vegetable bargaining associations must temper the desire for high prices with the need to maintain market outlets. The bargaining association member must understand the handler/processor is in a competitive situation as well, and both parties must understand the mutual benefits of their long-term business survival. Identifying mutual interests and avoiding confrontations can be an important factor in helping to gain recognition as a bargaining agent.

Disciplined Membership- Individual producers must meet their obligations if the bargaining process is to be successful. Members must be disciplined, producing a product that meets buyer specifications. Marketing agreements must clearly state the obligations of each member, and make known the consequences of failing to meet those obligations. In addition, members must be aware of the importance of meeting obligations. Member discipline and loyalty are functions of the demonstrated performance.

Control Over Supply- Coordination of fruit and vegetable production is plagued by the problem of matching an often erratic supply with a relatively stable demand. Although several elements are required for successful bargaining, the most important is control over supply. Market structure characteristics that enhance control over supply are barriers to entry, lack of close substitutes, geographic concentration of production, and a relatively small number of producers. Examples of barriers to entry are the geographic production restrictions for cranberries and the length of time to bring new peach trees into production. Also, perishability restricts producer market options as well as processor buying options, limiting supply to a smaller area. If bargaining improves the terms of trade without barriers to entry, other producers will enter the market, increase aggregate supply and reduce the effectiveness of bargaining efforts.

Marketing

In 1988, more than 300 cooperatives were marketing virtually every fruit and vegetable crop grown in the United States. They ranged in size from small vegetable packing operations with sales of less than \$1 million per year to large food manufacturers with sales of more than \$500 million annually.

A fruit and vegetable marketing cooperative is directly involved in the process of bringing a fruit or vegetable product from the farm gate to the consumer. The process of moving product from farm gate to consumer is one of "adding value," meaning each stage of the marketing channel increases the value of a product by performing one or more functions to provide a product as needed by the next stage. Value may be added through physical transformation such as grading, freezing, and canning, or via bargaining, storage, and distribution functions. From basic assembly of raw product into larger loads for shipment, to manufacturing of

leading consumer products, cooperatives are active in most of the marketing functions in the fruit and vegetable industry.

Assembly Functions

Assembly, or the combining of smaller lots into larger quantities for more economical handling and selling, can be thought of as the basic building block of a marketing cooperative. The definition of a marketing cooperative begins with individual growers agreeing to assemble, or pool their products and resources, to facilitate one or more marketing functions with the aim of improving their collective economic position.

For some fruit and vegetable cooperatives, assembly is the only market function. Members' production is brought together and sorted, washed, and graded into larger lots of specified grades and varieties. When procuring perishable products like fruits and vegetables, special emphasis is placed on obtaining a sufficient source of supply in a timely manner. In using a cooperative's assembly services, the buyer does not have to deal with the individual grower, thus saving search time in sourcing raw product. By assembling the production of many growers, the cooperative is performing a valuable function in providing a reliable source of raw product for the next stage in the system.

Historically, cooperative activity in the fruit and vegetable industry began with basic assembly functions. Prior to and into the early parts of this century, most fruit and vegetable production was sold through terminal auction markets. There, the production of many producers was brought together, enabling buyers access to larger quantities of specific products in a single market. Some of these auction markets were formed and operated as **grower-owned** cooperatives. This was often in response to the relative disadvantage the individual producer had in bargaining with buyers.

For fruit and vegetable growers in the West especially, assembly was an important function in solving the problems of marketing to the large population centers and major markets in the East. By the late 1800's, the west coast, particularly California, was the primary producer of many fruits and vegetables in this country. The prohibitive costs associated with each local cooperative transporting products to the East prompted the formation of a number of federated marketing cooperatives. Raw products were assembled for larger, more economical shipments. Early western

tree fruit associations such as Blue Anchor, Inc., Sacramento, CA, and Diamond Fruit Growers, Inc., Hood River, OR, and citrus associations like Sunkist Growers, Inc., now among the largest fruit and vegetable cooperatives, had their beginnings as federated cooperatives organized to serve eastern markets.

In general, as cooperatives gained exposure to the marketplace through the basic assembly functions, many used the experience to expand their activities into other market functions. As population grew and market outlets expanded, fruit and vegetable production expanded as well, with cooperative business volume increasing accordingly. The size of the typical cooperative also grew, with the growth coming from two sources. The first was the addition of new members that provided a more immediate avenue for growth. The second was the addition of more marketing functions, also known as vertical integration.

Vertical Integration

Vertical integration is defined as the coordination or performance of two or more sequential stages or functions in the marketing channel within a single organization. Since assembly is the initial step to vertical integration, and is common to all marketing cooperatives, the term vertical integration for purposes of this report will represent marketing activities in the fruit and vegetable industries beyond the assembly function.

Vertical integration takes place for a number of reasons. One is market failure. Perishable fruits and vegetables require market services provided in or near the production region. If a local shipper or processor goes out of business, forming a cooperative to purchase and operate a shipping or processing facility may be the only recourse for individual growers to maintain a market outlet. Vertical integration in this case is out of the need to provide market functions not available otherwise.

Another reason for vertical integration is the desire of the cooperative to capture more of the returns associated with the value-adding process of a particular product on its way to the consumer. Fruits and vegetables are marketed in a wide variety of product forms, requiring an equally varied number of market functions such as grading, washing, packing, freezing, canning, and juicing. Farmers often perceive the performers of these functions, or "middlemen," as receiving a higher rate of return than they do

as producers. The cooperative may realize a higher return due to improved coordination of supply with demand. Decisions are made internally through contracts or managerial edicts rather than through markets prone to uncertainty and variability. The cooperative then benefits from the efficiencies of improved coordination, and by the value-adding functions.

Cooperatives can also benefit from integration because of its income-stabilizing effect. Increased specialization in production to attain economies of size has resulted in the loss of some income stability provided by the diversity of crop and livestock enterprises on traditional farms. The integration of the farm business into processing via a cooperative may accomplish a degree of income stabilization, because profits from processing operations are often highest when production is high and farm prices are low. Thus, the total profit from production and processing may be more stable than the profits from either activity alone. A processing cooperative's net income would offset to some extent the variation in income from farming operations.

Integration also allows a cooperative to enter more stable markets for its products. Prices of many fruits and vegetables at the farm level can vary considerably from year to year, more so than the retail price. Integration into more stable retail markets for processed fruits and vegetables enables the cooperative to pass on to its members a more consistent return. Also, planning and coordination of member activities are better served by direct contact with stable retail markets.

Fruit and vegetable cooperatives vertically integrate along two product forms, fresh and processed, although one cooperative may be involved in both. While processing can be a complex operation and is the activity most associated with vertical integration, fresh marketing can also involve a number of distinctive market functions beyond basic product assembly.

Fresh Marketing

Fresh marketing of fruits and vegetables can be the simplest form of integration beyond assembly. A fresh marketing cooperative is distinguished from a basic assembly operation when the cooperative takes an active role in marketing its products. A sales staff makes contacts with buyers and determines what prices the cooperative will accept. Conversely, a fresh market assembly

cooperative takes a passive approach by using a broker to market its products. A fresh marketing cooperative then is defined as an organization that does its own marketing functions.

The fresh market for fruits and vegetables is defined as the system that provides products in a fresh form for the final consumer. Cooperatives that primarily sell fresh product intended for processing are not considered fresh marketers in this discussion. The functions involved in preparing a product for the fresh market are somewhat different than for processing, regardless of whether the cooperative does the processing itself or sells to a processor. While some processors are concerned with obtaining specific varieties and quality, in general fresh marketers have a greater concern with product quality in terms of appearance and ripeness. For example, while the purchase of a fresh apple or orange is greatly affected by appearance, a similar purchase for applesauce or orange juice has much less to do with the original appearance of the raw product. Often raw product used in a juice or sauce has been rejected for the fresh market.

Achieving and maintaining quality of fresh fruits or vegetables requires a number of specific functions. Product sorting and grading must be precise, and harvesting and timing of delivery must be properly assessed to ensure that the product reaches the consumer at the proper level of ripeness. Fruits and vegetables sold fresh are far more perishable and fragile than their processed counterparts. Maintaining fresh product quality requires careful handling, as with shock resistant containers and refrigerated trucks. The cooperative framework is well suited to achieve the coordination required to produce a quality product for the fresh market, particularly with the use of pooling. Pooling enables the cooperative to average the returns to a particular grade, which in turn spreads the benefits of grading more equitably among members.

Integration of fruit and vegetable marketing in the late 1800's was in products intended for the fresh market, since most products at that time were purchased in fresh form. Terminal auction markets were the primary market outlet, some of which were operated as cooperatives. As large retail buyers began to bypass terminal markets for direct contact with growers, terminal markets declined. Merchandising practices changed, and buyers began to use grower cooperatives as a "one-stop" source of supply. Cooperatives gained experience in marketing directly to large buyers and developed their own programs to service a wider range of markets.

As the breadth and scope of fruit and vegetable markets grew, smaller local cooperatives were limited in their ability to provide market representation and services on a national level. Locals marketing similar products found it to their mutual benefit to form marketing federations to provide concentrated marketing services for their members. Sunkist Growers, Inc., and Blue Anchor, Inc., were early federated fresh marketers in California, and are characteristic of the typical pattern of federated marketing cooperatives for west coast fruit and vegetable producers that began in the late 1800's. The Florida Citrus Exchange, now known as Seald-Sweet Growers, Inc., and one of the larger fresh marketing citrus cooperatives, began in the early 1900's as a federated marketing cooperative.

Cooperatives are also active in marketing fresh vegetables, but on a smaller scale in terms of sales volume and overall industry presence compared with the fruit marketing cooperatives mentioned above. While cooperatives market a wide variety of vegetables to the fresh market, none is easily identifiable as an industry leader. Overall, fresh vegetable cooperatives have less national distribution and are limited to regional markets.

The reasons fresh fruit cooperatives are generally more dominant are not well defined, and may be due to their larger number. Another reason is the relative geographic dispersion in the production of fruits and vegetables and its effect on the market structure for fresh produce. Fruit production is somewhat more concentrated than vegetable production, which is characterized by many varieties of vegetables produced across a wide range of States. For example, large independent brokers dominate marketing of fresh tomatoes because they are in the best position to react quickly to market signals and source production from any region. Cooperatives are at a disadvantage to independent brokers because they are formed to market the production of a specific set of growers, and therefore cannot react to market signals and source tomatoes from any region in the same manner. Further, the high perishability of tomatoes limits the time in which a specific set of growers are "in the market." A cooperative would then have a much shorter time to serve a large buyer who demands a consistent supply most of the year, which is more feasible for a broker who can follow the crop as it matures. Cooperatives do market tomatoes regionally, but the limitations of marketing member-product only and the relatively short marketing season work against coop-

eratives becoming major suppliers to high-volume buyers. The fresh tomato market scenario is found in other vegetables such as sweet corn and peppers, limiting cooperative market shares in these commodities as well.

Fruit marketing cooperatives, on the other hand, benefit in the marketplace from concentration of production and relatively lower perishability for many crops. For example, Washington apples are available at the grocery store year-round. Larger cooperatives are more easily formed because of the close proximity of growers and the ability to store apples for many months, enabling the cooperative to capture a significant portion of the fresh apple supply. For citrus and other tree fruits, similar production concentration facilitated cooperative formation. Independent brokers also operate in fresh fruit markets and often purchase products from cooperatives. By being in a position to offer a year-round supply, as well as being one of the few market options available for a given product, fruit-marketing cooperatives are more likely to achieve a larger market share than their fresh vegetable counterparts.

Although fresh fruit markets have a greater cooperative presence than those for fresh vegetables, there is potential for cooperative growth in the fresh marketing of both. From 1977 to 1987, total per capita consumption of fresh fruits and vegetables increased 11 percent, due largely to increased awareness of nutrition and diet. Not only has overall volume risen, but markets have become more segmented, with more specialty products and a greater emphasis on quality.

With their ability to coordinate the production practices of many growers, cooperatives are in a position to react to the increasing demand for a high-quality or specific variety product. Cooperatives can quickly and accurately communicate the need for a product to the membership. If cooperatives can perform better than other market participants in coordinating production practices, they can increase their share of the fresh produce market, as well as increase efficiency by providing more of the products consumers want.

Processing

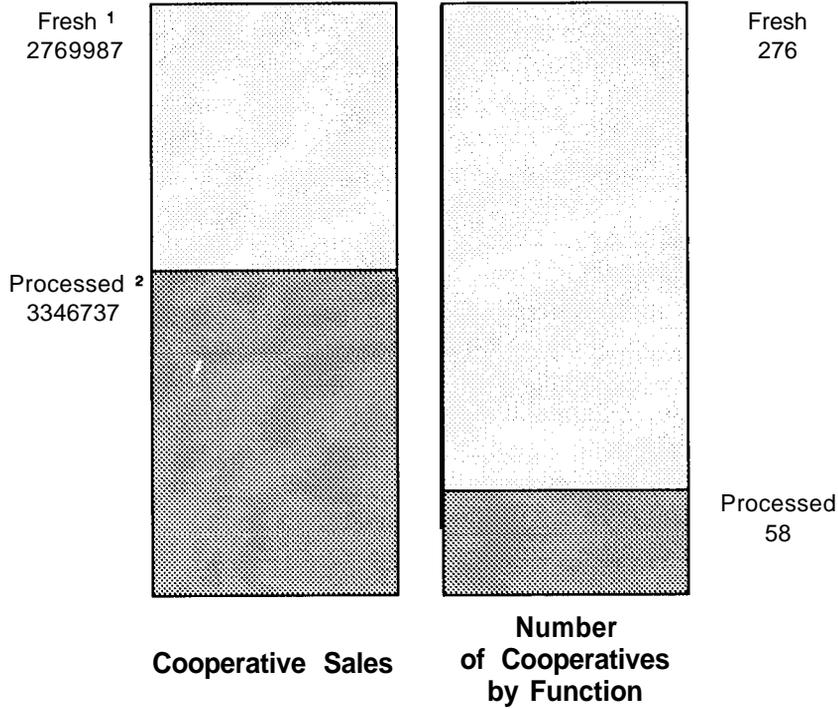
Cooperatives are active in most phases of fruit and vegetable processing, with many of the largest cooperatives deriving most or all of their income from the sales of processed products. Processed fruits and vegetables as an industry is characterized by cooperatives that are mostly larger than their fresh marketing coun-

terparts. In 1987, 59 fruit and vegetable cooperatives marketed processed products valued at more than \$3 billion, representing more than half of total cooperative sales of fruits and vegetables as shown in figure 9. Processing cooperatives averaged more than \$55 million in sales per cooperative, whereas fresh (which includes sales to processors) cooperatives averaged a little more than \$8 million in sales per cooperative.

Fruits and vegetables are processed into a wide variety of canned, frozen, dried, and other product forms. Overall consumption of processed fruits and vegetables has decreased in the past decade, while fresh produce consumption increased. Consumption of canned fruits and vegetables declined and frozen and dried consumption has increased slightly. Consumers generally perceive

Figure 9—Cooperative Sales of Processed Products versus Fresh Products, 1987

Thousand dollars



¹ Fresh includes sales to processors.

² Processed is sales of processed products only.

frozen fruits and vegetables as closer to their fresh counterparts than canned products in terms of taste and nutrition.

Although the consumption of canned fruits and vegetables has declined overall during the past decade, cooperatives have been able to maintain their business volumes and increase market share in such areas as canned tomato and apple products. On the west coast, in particular, the number of cooperative-owned canning plants has grown since 1970, many as the result of private processors going out of business and cooperatives purchasing and operating those plants. Canning cooperatives in California are involved heavily in canning tomatoes and tomato products. In Washington, cooperatives are major canners of apples and apple products.

The number of cooperatives engaging in fruit and vegetable freezing activity continues to grow as the overall frozen food category expands. Most freezing cooperatives are in Florida, California, and Oregon. Florida cooperatives process primarily frozen citrus juice concentrates, while those in Oregon and California process frozen fruits and berries. In dried fruits, while there has been some merger activity in recent years, the entrance of existing cooperatives into dried fruits has offset somewhat the decline in the number of cooperatives marketing dried fruit. Ocean Spray markets a dried cranberry product called “**Craisins,**” and Cherry Central, Inc., markets a variety of dried cherry products. In traditional dried fruits such as raisins, prunes, and figs, cooperative activity is concentrated among a few large firms.

Evolution of Cooperative Processing

Fruit and vegetable cooperatives were initially fresh marketers because at the time of their formation, most fruits and vegetables were consumed in fresh form. As processing technologies were developed on a commercial scale, particularly for canning, fruits and vegetables were the first food products to extend their shelf life.

Historically, processing operations were a residual outlet to the fresh market for low-grade, culled, or excess production. As production of fruits and vegetables expanded and became increasingly concentrated, the problem of excess production for the fresh market intensified, as perishability limited market options. Fruit and vegetable growers began to form processing cooperatives as alternative outlets for excess production. Cooperatives were often



● tri/valley growers

"Trailerloads of tomatoes await processing into tomato paste in this Tri/Valley Growers plant. The paste is then shipped either in bulk containers to other food manufacturers or is packed by Tri/Valley under its own retail labels."

at the forefront of developing processing technologies, primarily because of a more immediate need to develop alternative uses for members' production.

Cooperative processing on a large scale began after 1910 with dried fruits, principally prunes, peaches, and apricots from California. Drying extended the marketing season, created new product uses, and provided an alternative to the fresh market.

Cooperatives were among the early canners of fruits and vegetables on a commercial scale. Eugene Fruit Growers began canning vegetables as early as 1915 and, after a number of consolidations with smaller canning operations, became Agripac, Inc., Salem, OR, now a large vegetable processor. Cooperative canning developed substantially after 1930, with a peak of 88 cooperatives engaged in canning fruits and vegetables in 1939. Since then, the number of all canning operations has declined by more than half, though cooperative canners declined at a slower rate. By 1963, there were still 70 canning cooperatives. As investor-owned canners closed down, local growers, wishing to maintain a home for their product, formed cooperatives to own and operate local canneries.

In 1987, there were about 35 cooperative canners, with the decline in numbers due to both the decline in canned consumption and mergers of smaller cooperatives into larger operations. The most significant example of cooperative growth through acquisition and mergers has been **Tri/Valley Growers**. Created in 1963 by a merger of Tri/Valley Packing Association and Turlock Cooperative Growers, both of which began canning operations in 1932, **Tri/Valley** today is a major canner of fruit and tomato products. **Tri/Valley** has acquired the assets of several investor-owned firms and absorbed the operations of two failed cooperatives. The most recent was the 1983 acquisition of California Canners & Growers. **Tri/Valley** absorbed most of **CalCan's** membership and acquired many of its brands, including the Libby label. The net result has been a 50-percent increase in sales. While much of the cooperative pack is sold under private label and in food service markets, many **Tri/Valley** products are nationally distributed under the Libby and S & W labels.

Cooperative freezing of fruits and vegetables followed canning, as freezing technology was later in developing, and because refrigeration needed to keep frozen products in stores and homes had yet to be developed and adopted on a wide scale. Once home

refrigeration became common, the frozen food category expanded, sometimes at the expense of canned products. By 1959, 40 cooperatives were freezing fruits and vegetables. Often, cooperatives added freezing to their canning lines to diversify product offerings and to react to increased demand for frozen product. Today, Agripac, Inc., and Norpac Foods, Inc. of Stayton, OR, are the two largest cooperative vegetable freezers, yet both had their origins as canners and still can a significant amount of product. Although the total number of fruit and vegetable cooperatives has declined by more than 50 percent since 1959, cooperative freezer numbers fell by only 25 percent to about 30. The number of cooperative freezers has been increasing since the mid-1970's. when as few as 12 cooperatives were freezing fruits and vegetables.

Although there is significant cooperative activity and related success stories for almost all processed fruit and vegetable products, one product area that typifies best both cooperative success in marketing and the incentives to forward integrate into processing is fruit juice.

Fruit Juice: Cooperative Success and Innovation

Marketing of fruit juices is a good area for close examination due to the large cooperative presence and cooperatives' innovative role in developing products and markets.

Ocean Spray: Market Leadership Ocean Spray Cranberries, Inc., is the Nation's leading marketer of cranberry products. Formed in the early part of this century, Ocean Spray originally sold only fresh cranberries. One early marketing challenge was that cranberries were regarded as a holiday fruit, thus limiting Ocean Spray's market season and potential demand for the product. Also, as consumer tastes and buying habits changed, overall cranberry consumption began to decline. Rather than limit itself to efforts to expand fresh cranberry consumption, Ocean Spray invested substantially in product development and merchandising activities.

In the early 1960's, Ocean Spray diversified into juice drinks with the formulation of Cranberry Juice Cocktail. Blended drinks, such as Cranapple (cranberry-apple) and Cran-Grape (grape-cranberry), were introduced later in the 1960's as Ocean Spray made a large-scale commitment to the canned and bottled juice-drink market, Ocean Spray was one of the early companies



Ocean Spray Cranberries, Inc., took the cranberry from the bog, added innovative product development in kitchen laboratories with superior management and marketing expertise, and became the Nation's leading marketer of cranberry products.



to market blended juice drinks, and is considered a leader in the creation of a larger, more varied fruit juice market.

In 1976, sales of cranberry juice drinks were augmented by the inclusion into the cooperative of grapefruit growers from Florida's Indian River region and the subsequent addition of a line of citrus drinks.

In 1981, Ocean Spray became the first juice manufacturer in the Nation to offer juice-drinks in aseptically packed "paper bottles." The single-serving containers fit well with increasingly on-the-go consumer lifestyles, and the addition of the aseptic carton also enabled Ocean Spray to enter the apple and orange juice categories.

By the mid-1980's, the Ocean Spray product line included more than a dozen juices and juice drinks in five different size containers, and accounted for more than 80 percent of the cooperative's sales. The balance of Ocean Spray's sales are a line of cranberry sauces as well as fresh cranberries.

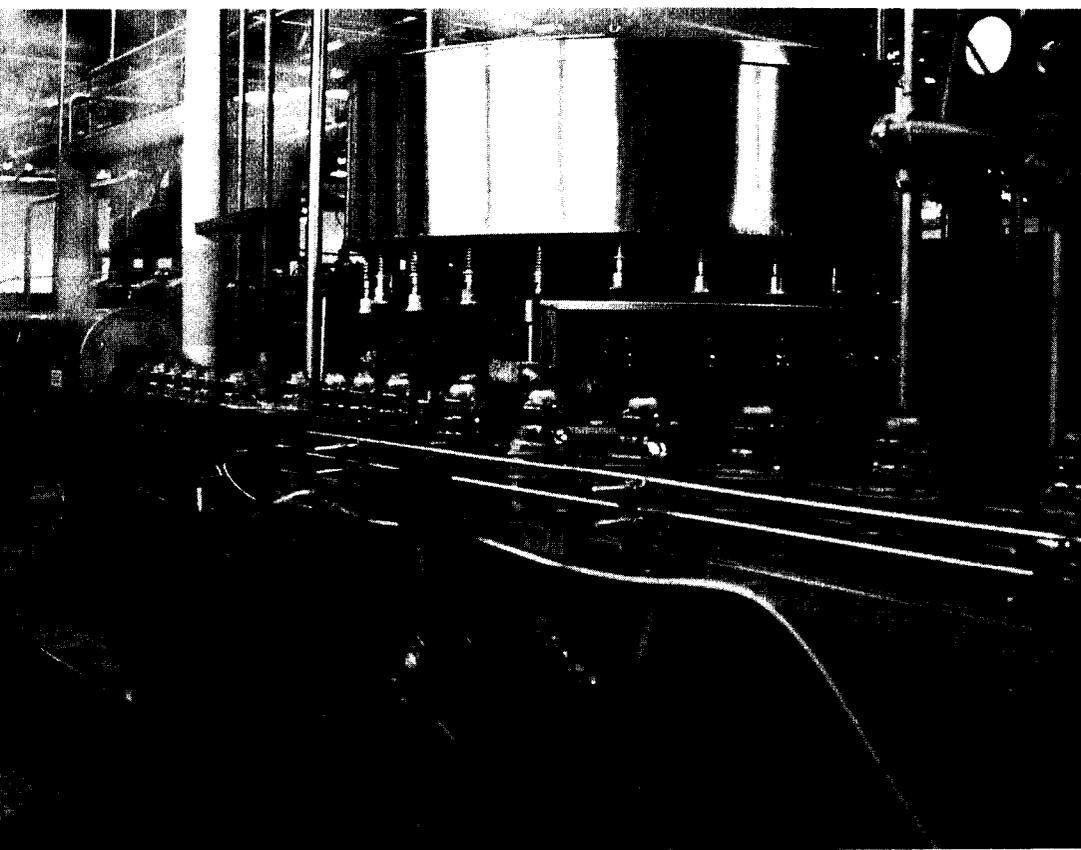
Ocean Spray's rapid rise in sales has made it one of the larger companies in the United States. In 1974, Ocean Spray was ranked number 916 in Fortune magazine's list of top 1,000 companies. By 1988, Ocean Spray had risen to a ranking of 382, one of the larger increases of any company over that time period. A combination of factors contributed to Ocean Spray's success. First and foremost was the total commitment of grower-members to new product development by making necessary changes in production practices and pooling procedures needed to facilitate a large-scale marketing program. Second, since Ocean Spray members already produce most of the Nation's cranberries, efforts to expand the market for processed cranberry products would benefit them more directly than a cooperative with a relatively small share of a commodity's production. Finally, Ocean Spray took advantage of consumers' increasing desire for healthy, high-quality products.

Tree Top: Meeting the Need for Alternative Uses of Apples

Tree Top Inc., Selah, WA, the world's largest apple juice processor, arose from both grower need and consumer acceptance. In the 1950's, Washington apples were being dumped into the Columbia River because there was no processor to handle them. As late as 1960, many Washington growers were paying to have their culled or excess fruit dumped or buried in canyons. A handful of orchardists recognized the need for a strong processing apple outlet, and in 1960 they formed Tree Top, Inc. The handful of growers



Apples become apple juice ready for the supermarket shelf in this Tree Top, Top, Inc., processing plant at Selah, Wash.



has grown to more than 3,500 grower-owners in the **Washington-Oregon-Idaho** area. In its 29 years of existence, the cooperative has grown from an outlet for what was once a waste product to one of the Nation's leading fruit processors.

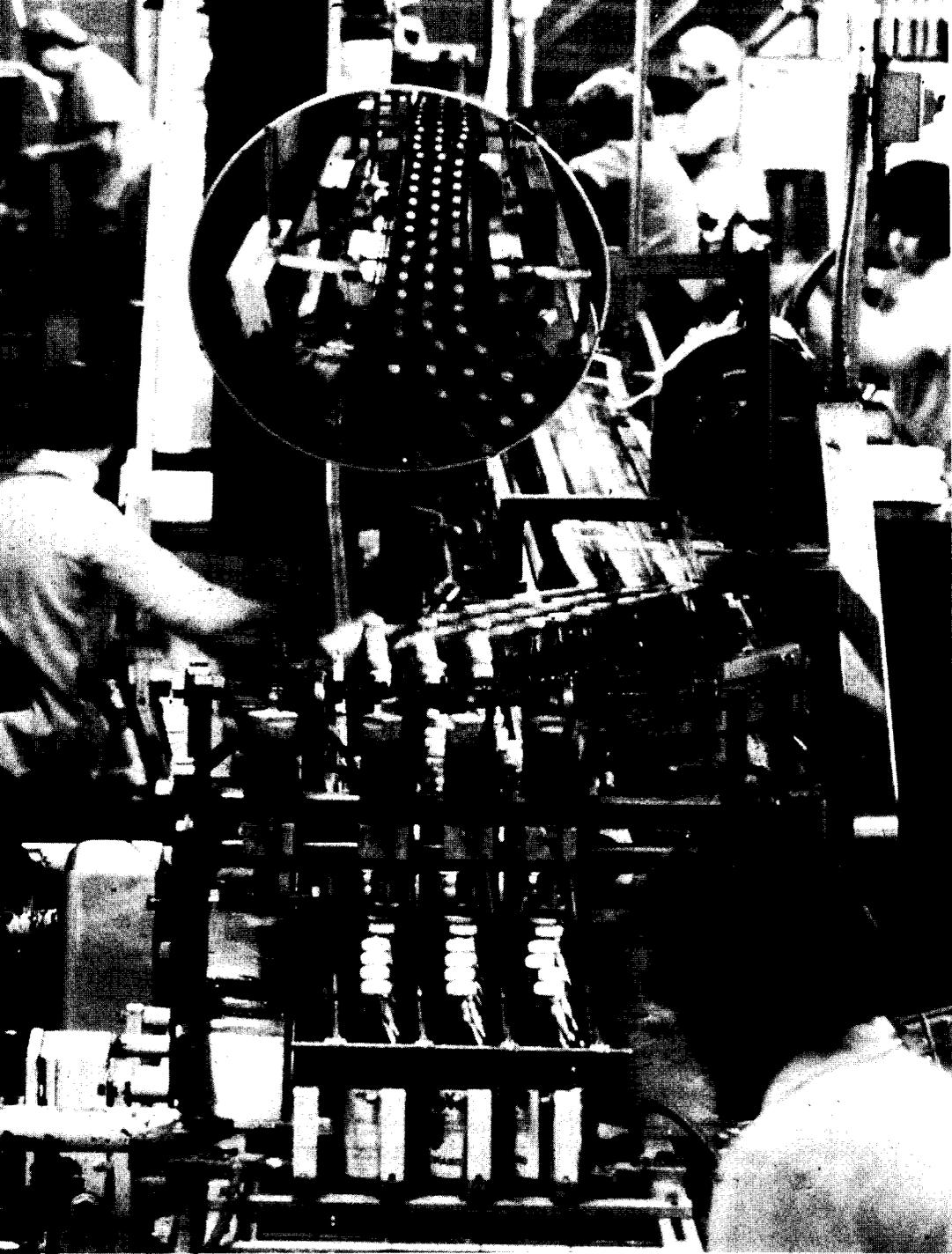
In the beginning, Tree Top processed single-strength (ready-to-drink) apple juice. In 1963, it offered frozen apple juice concentrate, the first such product to be marketed in the country. Frozen juice was developed to ensure packing in fluctuating crop years because of its longer shelf life. Also, it could be more economically shipped to all parts of the country than heavier **single-strength** apple juice.

Tree Top has expanded its product line beyond juice to dried apples, applesauce, and pear-apple juice blends to serve **pear-growing** members. Tree Top also has a variety of packaging concepts, including single-serve aseptic containers, and, following the wine industry's lead, 1 -1/2 gallon containers.

Tree Top owes its existence to the need to handle fluctuating apple production, and to the need for an outlet for apples not suited for the fresh market. In contrast, Ocean Spray expanded from fresh market dominance to fruit-juice leadership because of recognition that fresh cranberry demand was too seasonal, and that different products were needed to spread the market season. These cooperatives have grown to be the Nation's largest marketers of apple and cranberry juice products. Both have served the interests of their membership by developing products using member-grown products as the primary raw component.

Other cooperatives also play significant roles in the fruit juice industry. Welch's, the marketing subsidiary of National Grape Cooperative, Inc., is the leading marketer of grape juice in the United States. National Grape acquired the already successful Welch's brand through the purchase of Welch Grape Juice Company, with whom the cooperative had a long-standing grape supply arrangement.

There is also a strong cooperative presence in citrus juices. Sunkist, widely recognized in fresh citrus, is known for a number of processed products as well. Concentrated juice and essential oils are sold to manufacturers who market a variety of Sunkist brand products under a licensing agreement. Citrus World, a Florida cooperative, markets the successful Donald Duck brand, and Texas Citrus Exchange, Mission, TX, has a number of strong regional grapefruit juice products. A number of other cooperatives,



This juice bottling plant is owned by Welch Foods, the marketing subsidiary of National Grape Co-operative Association.

particularly in Florida, also process juice and concentrates which are sold for further manufacturing.

Branded Products Marketing

Most fruit and vegetable cooperative brands are associated with processed products. U.S. fruit and vegetable processors generally use three outlets for marketing processed products: retail grocery chains with their own distribution systems, food wholesalers that primarily supply smaller food chains and independent retail stores, and food service wholesalers. Although the foodservice area has been growing substantially, retail grocery stores remain the primary marketing channel for most processed fruit and vegetable products. Processed fruit and vegetable products for retail sale are marketed as either branded or private label. Branded products carry the processor's label or trade name throughout the

Table 1-Selected cooperative fruit and vegetable brands, 1987

Cooperative	Brands ¹	Product ²
Agripac, Inc.	Diamond A	Canned vegetables
Allied Grape Growers	Colony	Wine
Calavo Growers of California	Calavo	Avocado dips, sauce
Cherry Central Cooperative	Wilderness	Pie filling
Citrus World, Inc.	Donald Duck	Orange juice
Knouse Food Cooperative	Lucky Leaf	Pie filling, sauce
	Musselman	Applesauce
	Lindsay	Canned olives
Lindsay Olive Growers	Lindsay	Canned olives
National Grape Cooperative Assn.	Welch's	Grape juice, jelly
Ocean Spray Cranberries	Ocean Spray	Juice blend
	Cranapple	Cranapple sauce
	Craisins	Dried cranberries
	Seald Sweet	Citrus salads, juice
Seald -Sweet Growers, Inc.	Seald Sweet	Citrus salads, juice
Sun-Maid Growers	Sun-Maid	Raisins
Sunkist Growers, Inc.	Sunkist	Orange soda
Sunsweet Growers, Inc.	Sunsweet	Prunes
Texas Citrus Exchange	Texas Star	Grapefruit juice
Tree Top, Inc.	Tree Top	Apple juice
Tri/Valley Growers	Libby	Canned fruits
	S&W	Canned fruit/veg
Valley Fig Growers	Blue Ribbon	Dried figs

¹ Selected brands.

² One of the more common products associated with the brand

distribution channel, and may be sold on a national or regional basis. Private label products brands are owned by the retail or wholesale distributor. Table 1 shows some of the major national and regional brands of fruit and vegetable products marketed by cooperatives.

While cooperatives do market a number of brands, many cooperatives are heavily involved in processing generic fruit and vegetable products or in processing products to a semifinished state for sale to manufacturers of finished products. The distinction between branded and private label has important implications for processing industry structure. Developing a national brand requires large investments in product development and advertising and promotion, and is one reason most national brands are in the hands of a few large, multiproduct firms. Cooperatives generally have fewer resources to develop national brands. RJR Nabisco, owner of the well-known Del Monte brand canned fruits and vegetables, had total food sales of more than \$10 billion in 1987, almost twice as much as all fruit and vegetable cooperatives combined and more than 12 times the total sales of the largest cooperative. As a result, many cooperatives have greater success in developing private label markets than national brands.

Most fresh fruit and vegetable products are not branded, though there is an increasing interest in the use and benefits of branded fresh produce. A few cooperatives have strong brands in fresh produce, particularly Sunkist in fresh citrus and Calavo Growers of California, Tustin, CA, in fresh avocados.

Though cooperatives market most fruit and vegetable products, most cooperatives are identified along a single commodity line. Sunkist is synonymous with citrus; National Grape and its Welch's brand with grapes; Sun-Maid Growers of California, Kingsburg, with raisins; Sunsweet Growers, Inc., Yuba City, CA, with prunes; Tree Top with apple juice; and Ocean Spray with cranberries. Few cooperatives market a variety of fruit and vegetable products on a large scale. One reason is that cooperatives are usually formed by growers to market a specific set of commodities. Another is that in a competitive food industry, food manufacturers sell "products," while the cooperative and its grower-members sell "commodities." The food manufacturer is selling pies, not blueberries or cherries, and will substitute among a variety of fruits according to their success in the marketplace. The cooperative on the other hand is concerned with the welfare of a specific fruit or



Fruit and vegetable products account for a major portion of cooperative-owned brands entering the retail trade. Brands cover fresh product, processed individual products and combinations, and snack foods.



vegetable product in the marketplace, and cannot easily shift product mixes. Therefore, as fruit and vegetable cooperatives integrated further into the food system, their products reflected their role as organizations representing their grower-member interests in the marketplace.

Cooperative Marketing Tools and Strategies

Fruit and vegetable cooperatives use different mechanisms and strategies to coordinate activity within the association and better compete in the marketplace. Market agreements and pooling facilitate fruit and vegetable growers uniting to collectively market their products, and marketing orders and working arrangements enable the cooperative to interact with other organizations to improve their competitive position as well as contribute to the overall stability of the industry.

Marketing Agreements and Contracts

Although membership is voluntary, cooperatives may employ legal devices such as contracts or marketing agreements detailing the rights and duties of each party. While not all fruit and vegetable cooperatives have written agreements with their members, cooperatives increasingly use contracts to better coordinate grower-member activity as production and marketing activities become more specialized.

Marketing agreements or contracts specify the rights and responsibilities of both members and cooperatives and provide a means of coordinating activities. Through the agreement, the members are turning over to the cooperative some of the day-to-day decisionmaking on the marketing and handling of their crops. In turn, the cooperative agrees to provide certain marketing services for all members in an equitable manner. Whether the agreement is between an individual grower and the cooperative in a centralized structure or between cooperatives in a federated structure, the functions are the same: coordinate the transfer of products and services in an orderly fashion and clearly define the methods used in determining the sharing of costs, returns, and ownership of assets.

Contracts and agreements between fruit and vegetable cooperatives and their members are essentially no different than

contracts long used by other businesses and their grower-suppliers. In some industries such as processed vegetables, marketing contracts are the predominant exchange mechanism. When the first fruit marketing cooperatives were formed in the past century, they adopted contractual arrangements similar to those growers used in dealings with processors and packers. However, since cooperatives are owned by and operated for their member-patrons who have an investment in its operations, contracts assume greater importance. Each grower-member's financial well-being depends in part on the performance of other grower-members. Marketing contracts are commonly used by fruit and vegetable cooperatives to ensure compliance with grower-member obligations to the cooperative.

Cooperatives also differ from investor-owned firms in that they are often required to receive and market the production of their members. The reason for forming some cooperatives is to create a "home" or market for grower-members' product. Also, to ensure a definite volume of business, cooperatives often require the entire crop of each member to be marketed through the association. Fruit and vegetable crops are often prone to wide variability in yields, and in large crop years there may be a need to find additional outlets for excess production. If the excess supply must be diverted to other uses such as processing or export, special provisions in marketing agreements define these activities and specify distribution of costs and returns from them.

Like their investor-owned counterparts, fruit and vegetable cooperatives face the concern of handling a highly perishable product. Orderly marketing requires a degree of control over the product by the cooperative. Contracts may include provisions for planting and delivery schedules and minimum grades and quality. The obligations a specific contract carries for each party depend in part on the amount of control needed by the cooperative.

In some instances, as with processed fruits and vegetables, cooperatives require a greater degree of control over decisions on acreage, which varieties to plant, and when to harvest. Processing can encompass a number of sequential operations needing precise coordination. Perishability adds a "ticking clock" to the efficiency of the operation. Marketing agreements are used to coordinate harvesting with processing by specifying to grower-members the timing and quantity of raw product delivery. In some cases, the cooperative itself owns and operates the harvesters, a practice also com-

mon for other firms.

Processing cooperatives are constrained by fixed plant capacity in the short run, restricting the amount of raw product that can be economically handled. One way to control supply is to limit membership, although cooperatives still face the problem of members' ability to expand acreage. To minimize the chance of excess production, processing cooperatives sometimes use acreage allotments to control supply.

Since perishability limits the distance from which certain raw products can be economically acquired, processing cooperatives are limited in the number of potential grower-members. Processing facilities typically require a minimum level of production over a period of years to be economically feasible, and therefore use market agreements to maintain long-term relationships with local farmers.

Although cooperative marketing of fresh fruits and vegetables is also affected by product perishability, marketing agreements with the grower-members are less common and often less specific than for processed product. One reason is that the cost and complexity of the plant and equipment used to prepare fresh product for market is usually much less than for processing. Although fresh marketers need a consistent flow of raw product, fresh markets are less costly to operate at lower capacities than the processor. They therefore have less need for long-term market agreements to maintain minimum production levels.

In addition, cooperatives have greater flexibility in marketing fresh products. Excess or off-grade production can be sent to processors or export markets. Processing of many fruits and vegetables began as a residual market outlet for low-grade product, and although many processors now contract for specific grades and qualities, processing is an important outlet for excess fresh market product. Fresh marketing cooperatives, having more market options, use fewer or less restrictive marketing agreements.

Marketing agreements also often reflect the differences in annual versus perennial production. While fruits and vegetables have many common characteristics, there is a clear distinction in production cycles. Almost all vegetables are annuals, meaning supply in a given area can change quickly with changes in the relative profitability of competing crops. Therefore, cooperative coordination of vegetable production, particularly for processing, often requires long-term contracts to ensure both a stable member-

ship and an adequate supply of a specific crop.

Cooperatives marketing fruit are ensured the potential of adequate supply and membership by virtue of the biological production lags endemic to fruit production. For example, in tree fruit, the results of planting decision are often not realized for 5 years or more. The result to the fruit cooperative is that membership and production change more slowly and over a longer period than their vegetable counterparts.

Since grower participation is voluntary, marketing agreements must be acceptable to grower-members over the long run to maintain stability. The advantage of specific agreements that coordinate member production and practices is a more orderly marketing process. However, excessive control may inhibit new membership and cause member exodus in times of low returns. When a cooperative assumes greater control over member product, it also assumes greater responsibility for member welfare.

Pooling

For fruit and vegetable cooperatives, pooling is the most frequently used mechanism for allocating member returns. Pooling is a distinctive cooperative practice in that decisions on marketing and price are made by cooperative management. All members' crops are pooled to be sold by the cooperative's marketing specialists, permitting the cooperative greater flexibility in meeting the needs of buyers.

A major benefit from pooling is reduction of price risk. Since all pool members receive an average price for their commodity, the risk to a member of receiving a price lower than the average pool price is eliminated. Losses from lower-than-average price sales are spread among all pool members, as are gains from **higher**-than-average price sales. In addition to concentrated marketing efforts, the advantages of pools in obtaining higher prices are: (1) a readily available large quantity of commodity, (2) access to and time to use more complete market information, and (3) a possible increase in market power. Large customers are often willing to pay a premium for guaranteed qualities and quantities of supply, which a pooling operation can provide.

Pooling also benefits members by offering income diversification when payments are based on returns from a variety of products. Also, pooling simplifies accounting procedures, **espe-**

cially since most fruit and vegetable products are commingled in either a fresh packed or processing operation.

Market pool members receive the same average price for each unit of commodity delivered to the pool. Adjustments are made to the pool price to reflect differences in commodity quality delivered, transportation cost, or services rendered. The cost of operating the pool and any capital retains are deducted from the proceeds of the pool sale. In a typical pool, the producer receives an advance payment at delivery equal to what other members receive per unit of raw product delivered. As the contents of the pool are sold, progress payments are made. Once all product is sold and operating expenses deducted, the remaining proceeds are divided among pool members in a final or “equalization” payment. Differences in quality or grade delivered by the individual member are usually handled in the final payment.

Fruit and vegetable cooperatives generally use a seasonal pool; that is, the product from a given crop harvest season constitutes the market pool supply. These can be divided into single and multiple pools. In a single pool, all product from several producers are commingled and sold by the cooperative. In multiple pools, products may be segregated on the basis of grade, variety, time of delivery, and/or location, with each category constituting a separate pool. The number and design of market pools are the choice of cooperative management and its members. In choosing the number of pools to operate, a cooperative must balance the equitable treatment of growers with what is feasible in terms of accounting for the returns and expenses to each pool. In general, as raw products become more differentiated in terms of variety, quality, time of harvest, and geographic dispersion, more pools are used.

Marketing Orders and Cooperatives

Marketing orders are a mechanism enabled by government legislation that fruit and vegetable growers may use to promote collective orderly marketing of their products. The economics of fruit and vegetable production is characterized by periodic gluts and shortages, particularly for tree fruits, and a relatively slow-changing and inelastic demand. In many cases, the producer bears an inordinate amount of risk and the costs associated with it. Cooperatives are a way for producers to improve their economic position, and market orders are another designed to deal with **prod-**

uct variability and to accommodate fluctuating supplies with market demand.

Market orders rely primarily on quality control, market flow, and volume management regulations to enhance the level and stability of producer returns. Quality control regulations, the most common order provision, specify minimum marketable grades and sizes that result in more consistency and uniformity in product shipments. Market flow regulations, primarily used for citrus, limit fresh market shipments in periods of greatest product availability to achieve more uniform prices and avoid product waste. Volume management, the least common fruit and vegetable order provision, can be used to regulate supplies of fruits going into primary domestic markets either through reserve pools, producer market allotments, or diversion of excess supplies to alternative outlets. California raisins and prunes, each with strong bargaining associations, are among the few commodities with direct supply control provisions. Several supplementary provisions are widely used to improve physical product characteristics, promote the product through advertising, and improve the marketing system.

Forty-one fruit and vegetable marketing orders were active in 1988, with cooperatives operating in almost all commodities affected by an order. Orders are scattered throughout the United States, but are concentrated on the west coast, with tree fruits the most common commodity (29 standing orders).

Cooperatives play an important organizational and leadership role in the creation and maintenance of market orders. Legal statutes require that marketing orders be initiated and voted upon, by producers. Active support by cooperatives representing a majority of producers is an essential element for successful marketing orders.

Working Arrangements With Other Firms

Working arrangements that extend specific operations of individual firms are common in the business world. Fruit and vegetable cooperatives often enter into working relationships with other cooperative or noncooperative businesses. Working arrangements vary from informal arrangements for occasional processing services to the creation of separate business entities in a joint venture. Reasons for working arrangements are as diverse as the participating organizations, but for the most part the strengths and

weaknesses of the individual cooperative are mirrored by the joint activities they develop.

Economic needs underlie the formation of all working arrangements. In the case of fruit and vegetable cooperatives, reasons for participation in joint undertakings center on efforts to: (1) better utilize existing facilities and personnel, (2) avoid investments in additional plant and equipment, (3) ensure reliable supplies of raw commodities for processing, (4) gain access to new markets, and (5) improve market position by broadening product lines.

Cooperative

Short-Term Processing Contract-In the early 1980's, Keystone Foods, Inc., a Pennsylvania fruit processing cooperative, aggressively sought to use its excess processing and storage capacity. Keystone became a processor-for-hire, a common occurrence in the food processing industry, and performed contractual processing and storage services for a number of firms.

Welch Foods experienced a higher than anticipated grape production by its members during the same period. Also, to ensure an adequate supply, it decided to supplement members' production with a limited number of grape contracts from nonmember patrons. The combined effects strained Welch Foods processing facilities. Management's first obligation was to handle the production of its members. If nonmember grape supplies interfered with the delivery schedules of its own growers, a membership relations problem could develop. At the same time, the obligation to handle nonmember production remained. The solution came from Keystone, which provided additional processing and storage capability through contract arrangements.

Features of the 2-year agreement included: (1) specification of minimum and maximum quantities of grapes Keystone would be required to process and store each year, (2) schedules for receiving and processing grapes, (3) storage specifications, and (4) specification of Keystone's reimbursement. The contractual agreement between the two ended amicably when Welch eventually expanded its own processing facilities.

Joint Safes Agency-Lindsay Olive Growers of Lindsay, CA, and Willamette Cherry Growers, Inc. (now known as Oregon Cherry Growers) of Salem, OR, formed a joint-sales agency known

as Lindsay International, Inc. Lindsay International was established by Lindsay Olive Growers in the early 1970's as a separate cooperative, both as a vehicle to strengthen its own sales operation and to attract and facilitate entry of other cooperatives into a coordinated marketing effort. In 1976, Willamette Cherry Growers linked with Lindsay International for sales efforts.

Willamette, a processor of Maraschino cherries marketed in bulk form, decided to emphasize retail and food service sales in the mid-1970's. This required a different marketing approach. Lindsay recognized that olives and Maraschino cherries represented a desirable product mix, as both canned olives and cherries have similar end uses but are not direct substitutes. Lindsay's previous experiment with Maraschino cherries proved unsuccessful because of insufficient volume for the capital-intensive brining process. Willamette's realization that its cherry volume would be insufficient to support an adequate sales network and Lindsay's limited production capability made both organizations receptive to the idea of a marketing alliance for Maraschino cherries.

The arrangement met the expectations of both organizations. Lindsay International has established itself as a prime marketer of specialty food products. Willamette's branded cherries went from a zero sales position to a dominant position in the national market, and Lindsay olive sales also increased at an accelerated pace.

There are many examples of working arrangements between fruit and vegetable cooperatives. Cooperatives often feel a need to work together to solve mutual problems, recognizing they share many of the same goals and philosophies. As the food industry becomes increasingly concentrated and competitive, it is likely that more cooperatives may explore and implement arrangements with other cooperatives.

Noncooperative

Joint Venture-Cooperatives enter into joint ventures with other businesses for the same reasons they enter into working relationships with other cooperatives. Although there is no clearly established, legal definition of a "joint venture," the term is usually associated with a separate entity, owned and controlled by a small number of participants to carry on a specific, limited economic operation. Participants agree to share expenses, margins, losses,

risks, and control of the arrangement, but each remains independent.

One of the larger ventures serving fruit and vegetable growers is between Curtice-Burns, Inc., and Pro-Fat Cooperative, Inc. It was organized by Agway Inc., a Syracuse, NY, supply cooperative, and Pro-Fat Cooperative, Inc., a Rochester, NY, growers' marketing association. Curtice-Burns is an investor-owned food processor in which Pro-Fat members are stockholders along with other investors. Pro-Fat owns the processing facilities, supplies the product to Curtice-Burns, oversees member performance, controls volume, and pays members for raw product. Curtice-Burns leases the processing facilities from Pro-Fat, operates the plants, and markets the finished products. Earnings are divided equally with Pro-Fat.

Pro-Fat members benefit from the joint venture with Curtice-Burns by having an assured market for their production and from sharing in the profits from the sale of processed products. Curtice-Burns has built a number of strong regional brands, and Pro-Fat participates in a marketing program that would be costly and difficult to develop alone.

Other Types of Cooperatives

Growers also use cooperatives to perform functions other than marketing such as storage, irrigation, or purchasing supplies.

Supply Cooperatives-Production and marketing of fruits and vegetables requires a variety of inputs and supplies. Since the early 1900's, growers have formed cooperatives to reduce costs of supplies and equipment through volume buying. One of the first, Fruit Growers Supply Company of Sherman Oaks, CA, was formed to supply pallets and wooden boxes to citrus packinghouses. Fruit Growers Supply operated three lumber mills and box factories, and constructed a carton-fabricating plant when this use **became**-standard. Today, in addition to cartons, Fruit Growers Supply makes available to members picking supplies, irrigation hose, fertilizer, and miscellaneous packinghouse supplies such as belts, gloves, and adhesives.

Similar supply cooperatives were formed to service Florida citrus growers. Highland Exchange Service Cooperative of Waverly supplies members with packing materials, as well as serving poultry and celery processors and packers. Citrus Central, Inc.,

of Orlando is a federated cooperative manufacturing and supplying cans to citrus processors.

Supply cooperatives are also formed to support coordinated marketing operations. Maine Bag Company, a subsidiary of Maine Potato Growers, Inc., Presque Isle, was formed in 1945 to manufacture bags for the cooperative's marketing operations. By the early 1980's, the company began selling bags to other packers throughout New England and New York. Sales have since grown to nearly equal the level of its potato marketing operations.

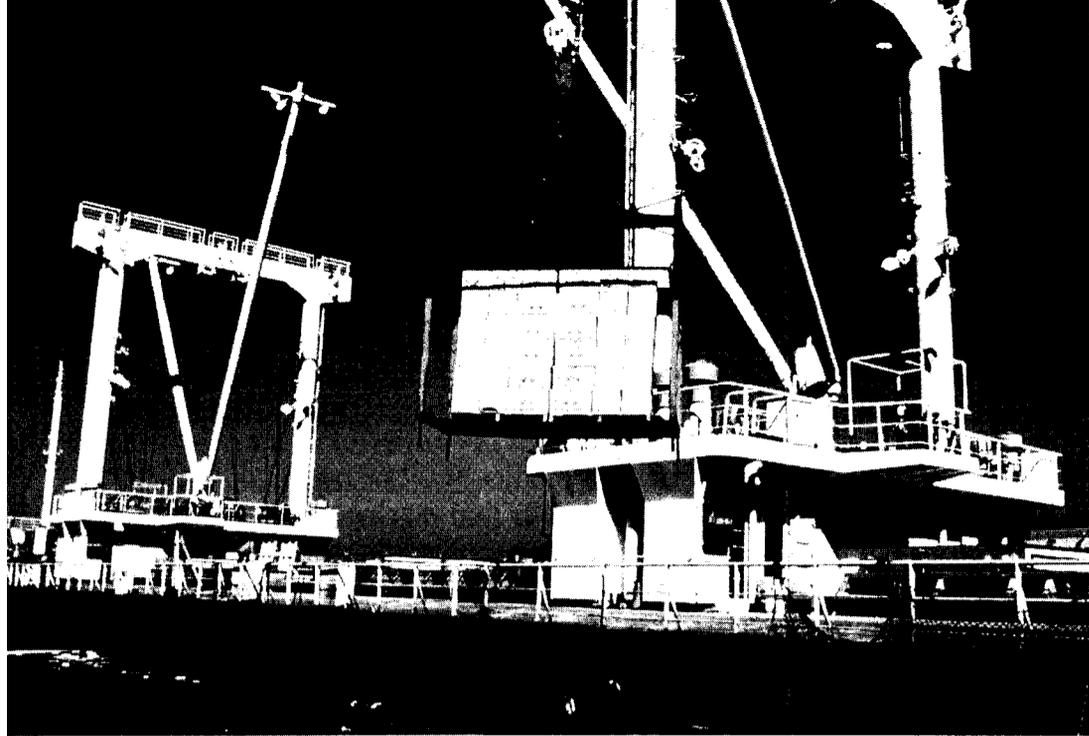
Storage Cooperatives—Some fruits, particularly apples, can be kept for many months after harvest in cold storage, or even longer in a controlled-atmosphere facility. Often too costly for the individual grower, growers have formed cooperatives to construct and operate storage facilities. Examples of storage cooperatives are **Shoreham Co-op Apple** of Vermont and **Lake Country Storage** of New York. Though they may engage in some sales activities for members, these cooperatives are primarily for storage of member product.

Irrigation Cooperatives—Since the late 1800's, fruit and vegetable growers have formed cooperatives to supply water for their crops, especially in the arid regions of the West. Their purpose is to obtain and distribute irrigation water at cost for use on member cropland.

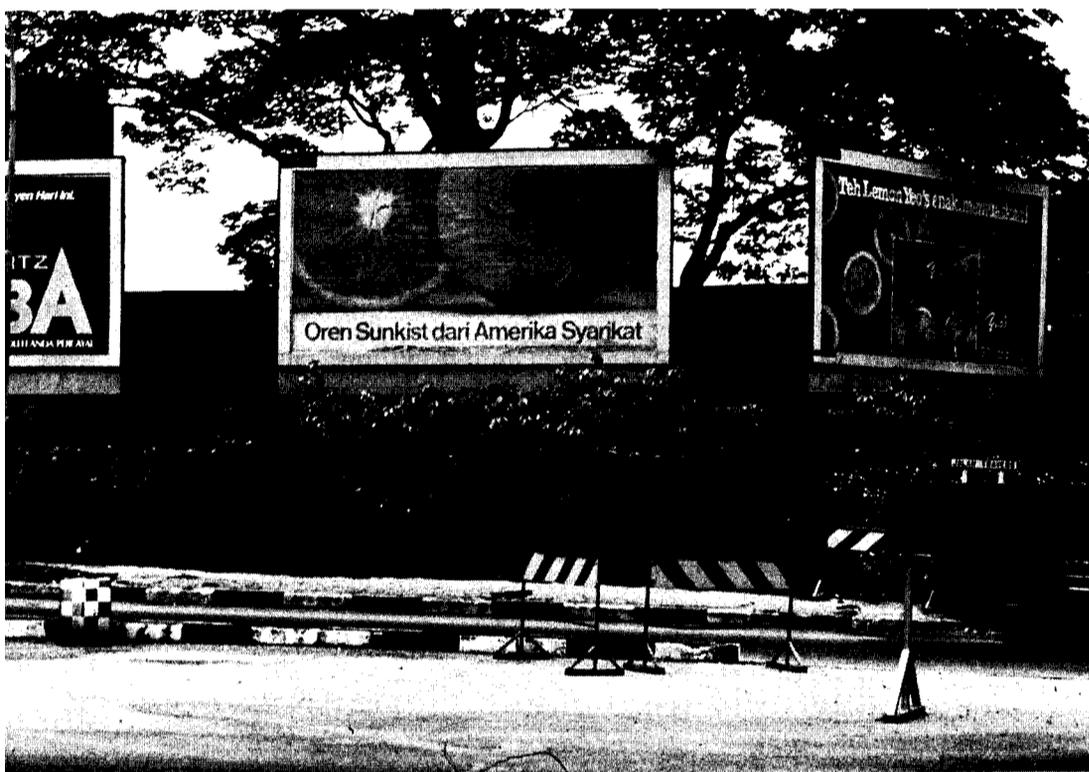
The Strawberry Water Users Association of **Payson, UT**, is an example of growers of a specific commodity forming a cooperative for irrigation. Other irrigation cooperatives have been formed to supply water to a specific region, serving the growers of a variety of commodities.

Future Issues for Fruit and Vegetable Cooperatives

Cooperatives have a long and active history in marketing fruits and vegetables, and will continue to be a leading factor in the industry. Cooperatives will remain one of the better ways for fruit and vegetable growers to market their products and improve their economic positions. Given their diversity in size and products marketed, a variety of specific issues face the individual fruit and vegetable cooperative. Collectively, cooperatives in an increasingly competitive food industry all are affected in some way by a number of common issues.



More than two dozen fruit cooperatives have export operations and account for a third of the U.S. fruit exports. Though only about a half-dozen cooperatives export vegetables, they still account for about 6 percent of U.S. vegetables exports.



Mergers and consolidations are concentrating food businesses into fewer and larger operations with far greater resources than the average cooperative for developing and maintaining markets. Mergers and acquisitions are often more difficult for cooperatives because of the nature of the organization itself. If merger is to diversify income, a reason commonly cited in mergers or acquisitions, are growers of one commodity willing to pool returns and costs with growers of other commodities in balancing payments to each? Unique arrangements such as joint ventures and copacking will continue to be a way cooperatives can merge resources.

As food processing industry mergers and acquisitions continue, bargaining associations will find that their philosophies change. The new owner of a processing operation may have a different view of farm bargaining than the prior owner, and the bargaining association will have to develop a new relationship. This is critical to the success of bargaining.

While the food industry in general is becoming increasingly concentrated, food markets are becoming more specialized. With the proliferation of new fruit and vegetable varieties and products, more specific markets are being created. Many cooperatives will find increasing opportunities to serve growing market niches that require fewer market development resources than efforts to develop widely marketed, nationally branded products.

Per capita consumption of fresh fruits and vegetables has risen steadily over the past decade, with product variety and quality demands by the consumer increasing as well. As a coordination mechanism, cooperatives with their close links to growers are in an excellent position to provide a variety of quality fresh fruits and vegetables, and will see opportunities to increase market share in a number of product areas. Also, the fresh produce industry is less concentrated and characterized by smaller firms than food manufacturing, meaning cooperatives are generally more competitive with their investor-owned counterparts. However, there has been an increase in branded produce by both cooperative and noncooperative food companies, which has important implications for the structure of the produce industry. If it continues, the industry will likely become more concentrated if brands come to dominate the fresh market as they do in processed products. Cooperatives have the opportunity to be among the early leaders in branded produce.

Increasingly, fruits and vegetables consumed in the United

States are imported from other countries. One reason is that consumers are developing tastes for more exotic products produced only in other countries. Another is that more countries have entered production of traditional fruits and vegetables grown in the United States, and as relative costs of production and distribution have narrowed, imports have increased. Grapes and apples from Chile, vegetables from Mexico, and frozen concentrated orange juice from Brazil are a few of the imported commodities that compete directly with U.S. production. While brokers benefit from the flexibility imports offer, cooperatives are at a disadvantage because of their primary obligation to market the production of their members. In addition, cooperatives are limited by law in the amount of nonmember business they can do, restricting the quantities they could import to no more than 50 percent of member business.

To procure product from outside the United States, a few cooperatives have enlisted foreign members. Legally the same as domestic membership, acquiring foreign membership is clearly the most direct way cooperatives can obtain product on a worldwide scale while maintaining a legal cooperative structure. Most fruit and vegetable products are limited by perishability to seasonal availability. Imports offer cooperatives the opportunity to obtain products produced contra-seasonally in other countries to enhance domestic supply toward year-round availability. Cooperatives will look more to foreign membership to improve their competitive position and broaden their marketing programs as the competition from imported products increases.

Desire by consumers for food product safety is a concern in the fruit and vegetable industry. Cooperatives are well suited to monitor grower production practices to ensure safe products. Also, as more efficient and safe production practices become available, cooperatives can quickly adopt the most effective practices through their close contact with growers.

Cooperatives' organizational structures will continue to evolve as they respond to changes in the food industry and changes in the makeup and interests of their membership. Current pooling practices will be re-examined and new methods explored as new products and members are added. Continued emphasis will be on balancing the need to reduce individual member risk with allocating returns equitably in line with the member's performance.

The relations between a cooperative and its members is a reflection of the performance by the cooperative in marketing

member products. Recruiting and maintaining membership will depend in part on the ability of the cooperative to educate members on the nature of cooperative operations and what constitutes good performance. For a fruit and vegetable cooperative that deals with perishable commodities prone to supply variability, net returns as a performance criterion has to be considered over the long term. Member education will continue to be essential in helping growers understand that cooperatives aim to enhance grower income.

Marketing agreements and contracts will be increasingly looked at for facilitating better member relations by spelling out exactly what the cooperative will do for the member, and what members' obligations are to the cooperative. As cooperatives look to tailor membership to specific varieties, quality, and volumes, marketing agreements will play an important role in recruiting and defining membership.

Author: James A. Jacobs/Agricultural Economist

**U.S. Department of Agriculture
Agricultural Cooperative Service**

P.O. Box 96576
Washington, D.C. 20090-6576

Agricultural Cooperative Service (ACS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

ACS publishes research and educational materials and issues Farmer Cooperatives magazine. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, age, marital status, handicap, or national origin.