

Some growers participate in

# Cooperative Canneries

other growers prefer to sell to private canneries

Participation in cooperative canning usually offers a grower the advantage of an assured outlet for his raw product, because cooperative canneries generally stand ready to receive his crop for processing, regardless of the market situation. Thus the grower's risk of not having an outlet for his product may be reduced or even eliminated.

One major disadvantage in cooperative canning is the grower's participating assumption of fluctuations in costs, market prices and returns, between the harvest of the crop and the sale of the finished product—the risks carried by privately owned canneries.

A growers' cooperative cannery represents a form of vertical integration, referred to as forward integration. In forward integration the balance of production-procurement-marketing risks is restructured rather than eliminated.

Canning by privately owned companies may also involve elements of vertical integration. Some private canners make arrangements with growers with the built-in stipulation that the grower's crop goes to that particular canner. Such an arrangement is a form of backward vertical integration; a more direct form is the case where a private cannery has its own orchards to supply part or all of its needs.

In recent years, a trend toward grower cooperatively owned canneries has developed in fruit and vegetable processing. This is part of the integration trend occurring in business—nonagricultural as well as agricultural. But grower cooperative canneries have certain features not generally found in most other forms of vertical integration by farmers.

Grower cooperative canneries process and sell a group of products rather than one or two. This is necessary to utilize the cannery at efficient levels of output and to spread the cannery operations over as long a period as feasible in view of the seasonal availability of the farm products canned. Also, a cooperative cannery generally finds it advisable to have a line of canned products for sale. A single product operation is no more economically feasible for a growers' cooperative than for a privately owned cannery.

Grower cooperative canneries are not a new development in California. They have existed, at one time or another, during the past 75 years, and were relatively prominent during the 1920's. In that period, one of the growers' cooperative canning associations developed into a relatively large operation with a number of canneries in the state.

Because of management difficulties, aggravated by the accumulation of unsold inventories in the face of unfavorable business conditions, grower interest receded and the growers' cooperative associations dissolved. Out of the ashes developed a new growers' cooperative canning association. Shortly thereafter, another cooperative cannery was established. Both of these associations operate successfully.

For close to a quarter of a century, those two growers' cooperative canning associations were the only two in the state, with a line of canned fruits and vegetables. Within the past several years, a third one has been formed. It began by purchasing the facilities of two well established private canning companies, and later purchased a third privately owned cannery—again through grower participation supplemented by long-term loans and special repayment arrangements over a period of years.

## Extent

In past years, and still, the number of vegetable and deciduous fruit growers participating in cooperative canning and their total volume of output comprise a minor portion of the state's production of canned fruits and vegetables. Most growers of these crops sell and deliver their output to private canneries, although the proportion taken by cooperative canneries has risen sharply during the past several years.

Privately owned canneries attempt to hold their grower suppliers and attract more of them. This is done by various methods including, at times, special inducements such as arrangements for the financing of orchard purchases and expansion. Cooperative and private canneries thus, to some extent, compete for raw product suppliers. But the coopera-

tive canneries generally do not maintain, at all times, an open door for new members; the cooperative canneries attempt to tailor their membership number and volume to available processing capacity and market potentials. The desire for additional growers to become members of cooperative canneries was one of the conditions underlying the establishment of the most recently organized growers' cooperative canning operation.

## Returns and Methods

The grower returns per ton of raw product—from a cooperative cannery compared with a private cannery—cannot be easily or directly determined. Cooperating growers may be involved in initial advances, revolving funds and pooling arrangements. The returns to cooperating growers are generally based on pools where the return received by a grower for a particular crop is influenced by the cooperative's experience with other crops it processes and sells during the same period. Growers selling to private canneries may receive various inducements in addition to the nominal price per ton.

Some growers view cooperative cannery operations as a means of capturing the profit margins imputed to private canning firms. Other growers view cooperative canning as a means for establishing a yard-stick for the measurement of equitable prices to be paid by private canneries to growers. Privately owned canneries question what they call legislatively established advantages—as tax provisions—which are accruable to cooperatives but not to private firms.

## Relation to Other Marketing

Because, in some crops, the same individuals happen to be interested and active in marketing orders and cooperative bargaining associations, as well as growers' cooperative canning, some people confuse those three types of activities or believe they are the same. But they are three distinct operations.

Marketing orders operate under the authority of and are subject to the

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needed. By proper arrangement of equipment and method, they are done in the easiest and quickest way possible. Each one of the tasks comes in a time sequence so an extra man can not be effectively used.

The trailers permit the use of the booms on light wheel tractors which, compared to trucks, are designed to move slowly through the orchard with their weight distributed over larger size tires. The tractors have better traction, and cause less dust and less soil compaction. On the road, two trailers in tandem can be hauled by a fast truck. Only one or two such trucks, each with a driver but no swamper, meet the needs by a packing house because the drivers merely unhook and hook up their trailers at orchard side and at the packing house. As designed, two trailers can be hauled each trip, carrying the equivalent of 384 standard citrus field boxes or 10-11 tons of fruit.

Assuming four minutes are required at orchard edge for unhooking trailers with empty bins and hooking onto loaded trailers, eight minutes for unloading at the packing house, and a driving rate of 35 miles an hour on a 10 mile round trip, one man can make 14 trips in eight hours with a total load haul of 140 tons of fruit. He can, at the same time, return to the orchard an even greater volume of empty bins.

The dimensions of the bin reflect several considerations. The first consideration was the effect of bin size on pickers' performance. In light-crop picking a big container would require some

long carries by the picker. A partial fill of a big container would be less efficient in handling and might result in inaccurate measurement. Since pickers are paid by incentive rates, such factors are important.

A second consideration was the maximum height at which a picker could conveniently empty his bag. A third consideration was the structural strength of the bottom of the bin; too great a cross diameter would weaken the bottom relative to the cost limit.

The round bin is primarily a wood fiber product with some glass fibers added. It is molded from a slurry. Strength is achieved at low cost because of the natural strength of the material and its use in a round self-supporting shape. It is anticipated that the bins will have a long life and seldom need repair. The material and method used in their construction, their round shape and the method used in handling them indicates a life materially longer than that of field boxes.

A common objection to round bins has been the impression that they waste space. As a first approach it should be noticed that while a circle loses 21.46% of a square, a pallet bottom uses up 20% of the depth of a 30" high bin, 24" in depth.

Moreover the thickness of the side of a round bin with reinforcing rim need not exceed a half inch and may be less. A square bin, on the other hand, must have reinforcing for its sides which to date has ranged from one to four inches. A 1½" wall on a 36" square pallet bin wastes 16% of the volume occupied while a ½" wall on a 24" round bin uses only

8.2% of the volume occupied. The tapered form needed for nesting wastes an additional 11.4% of the square. In total the round bin wastes 41% of volume while the palletized container in the dimensions given wastes 36%.

When nested in storage, the round bin requires only one-quarter the space of the pallet, and when loaded six high in hauling, it requires only one-third the space.

It is important to note that the use of a roller floor on the trailer in conjunction with a roller floor on the receiving dock permits very quick unloading at the packing house. Complete mechanization of the handling and dumping has not yet been attempted with the round bin.

The essential new element in the proposed method is economy in the use of manpower. The tractor boom, the roller floor, the trailer superstructure are all simple mechanical concepts. Even the bins, while made up of new materials, are old in concept as to shape as can be seen in the barrel and particularly in the bushel basket.

What is particularly important is that these mechanical features are put together into an arrangement so that one man can drive a tractor and from the same position carry out the tasks of distributing bins, picking them up, and stowing them on the trailer, easily and with speed.

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approval of the Director of Agriculture, for California state programs—or the Secretary of Agriculture, for Federal programs. Under California enabling legislation, a marketing order for a particular farm product may include one or more of the following provisions: volume control; quality, size, grade, pack or container regulation; advertising and sales promotion; research; and prohibition of unfair trade practices. Once made effective, the provisions are applicable to all in the specified industry.

Cooperative bargaining associations are established under and operate subject to federal and state legislation on cooperatives. Cooperative bargaining associations are generally in fruits and vegetables for processing; the association's management—on behalf of the membership—bargains with cannery customers with respect to price and other

terms of trade. This can be done whether or not a marketing order is in effect.

Any of the three—growers' cooperative canning, marketing orders, and cooperative bargaining association—may exist independently of the other two. Some crops have only one of the three, some have two, and some have three—other crops have none of them.

### Competitive Structure

The growth in grower cooperative canning of fruits and vegetables is part of the changing market structure of the canning industry. Over the years, the larger firms have been accounting for an increased proportion of the output and sales. Cannery customers have also tended toward volume concentration as private chains, cooperative retailer buying groups and wholesaler-retailer teams—direct buyers from canneries—have been replacing the former many independent wholesalers.

Grower cooperative canning is, in part, a reflection of growers attempting to maintain and increase their returns as the competitive nature of their market changes. At the same time, the several cooperative canning groups in the state compete among themselves, as well as with private canning firms, for markets. Competition for cannery customers is being restructured rather than eliminated. The changing form of competition is related to the distribution of benefits and burdens among farmers, canners, distributors, and consumers.

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*An article on grower cooperative bargaining associations will be published in a forthcoming issue of California Agriculture.*