

flexibility. Because of its more restricted nature it may perceive fewer competitors than either of the other types. The small size of most bargaining cooperatives may also help to explain this situation. Operating cooperatives, on the other hand, are more diversified and may view all types of cooperatives in their market as competitors.

Bargaining cooperatives indicated they have fewer potential customers than either of the other two types. This is probably explained by the inability of bargaining cooperatives to provide the full complement of services or volumes as large as other types of cooperatives. The large number of marketing cooperative customers may be due to the large volumes handled by these cooperatives.

Cooperatives indicated that 47 percent of their proprietary handler customers purchased bulk milk under some type of full supply arrangement.<sup>7</sup> Small cooperatives and bargaining cooperatives tend to have a higher percentage of their customers purchasing milk under full supply arrangements. This can be explained by their reduced flexibility and the necessity to reduce their uncertainty. Informal or verbal full supply arrangements are used most frequently (Table 2a). It should be pointed out that the figures on formal and informal full supply arrangements do not indicate the number of such arrangements—only the percentage of cooperatives who have one or more of these types. If a cooperative had both types of arrangements, the survey instrument did not detect the relative importance of each type within the cooperative.

In the West more cooperatives use formal contracts than informal contracts but in the South, the situation is reversed. The average cooperative had 41 percent of its annual volume committed under some type of full supply arrangement. Once again small and bargaining cooperatives had a larger percentage of their milk committed than did larger cooperatives and marketing and operating cooperatives. This is primarily a reflection of the lower volumes of milk handled by bargaining and small cooperatives. Notice the small percentage of milk committed under full supply arrangements by the average Midwestern cooperative and the large percentage committed by Western, Central and Southern associations.

Almost 90 percent of all proprietary handlers purchase some milk from one or more cooperatives. This figure is fairly constant across size and regional classifications as seen in Table 2b. Nearly three-quarters of the proprietary handlers pay premium prices above the federal order Class I minimum for at least some of their Grade A supply. This figure is also fairly constant across the two size categories but it does differ across regions. In the West only 6 percent of the proprietary handlers pay over-order prices.

Proprietary handlers were asked to estimate the number

of cooperatives that sold bulk milk in their marketing area. The figures are quite stable for all categories and are relatively low. Proprietary handlers indicated an average of three potential cooperative suppliers of bulk milk. These figures, of course, do not represent all of the alternatives open to a proprietary handler since independent producers and other proprietary firms may also provide bulk milk.

### Supply Arrangements

Supply contracts are important components of exchange in the dairy subsector. For purposes of this discussion, the term "supply contract" will be used to describe any written arrangement for the sale of bulk Grade A milk between a cooperative and proprietary handler, signed by representatives of both parties. All verbal understandings will be called supply agreements. If the contract or agreement is for all the Grade A milk needed by a proprietary handler it will be designated as full supply, otherwise the term partial will be used. Supply arrangement is the collective term for all the above types.

Forty-four percent of proprietary handlers indicated they purchased milk under some type of full supply arrangement. This figure was fairly constant across size groups and did not vary appreciably by region. (Table 2b). The written or formal type of arrangement is used by 60 percent of the proprietary handlers who have entered into a full supply arrangement. The remaining handlers use the informal or verbal type. Among the larger proprietary handlers there appears to be little distinction made between the two types of arrangements. In the Midwest the informal type is preferred by a large margin while in the South the reverse is true. It is interesting to note that on the average, full supply arrangements have been maintained between proprietary handlers and cooperatives for periods in excess of 10 years.

**Full and Partial Supply Arrangements.** Proprietary handlers prefer a full supply arrangement when supplies are short or are expected to be. Cooperatives, on the other hand, prefer them under the opposite conditions. They prefer flexibility when supplies are tight and supply commitment when quantities are abundant. These simple rules explain much of the behavior toward full supply arrangements shown by these two groups.

There are several factors favoring full or partial supply arrangements. Cooperatives prefer full supply arrangements because the uncertainty associated with ensuring a market for their members' milk is reduced and their planning is facilitated. These full supply arrangements also ensure that the cooperative does not do more than its share of supply balancing and disposal.<sup>8</sup> Full supply arrangements also

<sup>7</sup> A full supply arrangement provides for the provision of all (with a few minor exceptions) the bulk Grade A milk needs of a proprietary handler by a dairy farmer cooperative. The arrangement may be written or verbal.

<sup>8</sup> Of course, no automatic guarantee of adequate compensation for these services is provided by a full supply arrangement. Competitive conditions in the local market, the cooperative's bargaining strength and the reasonableness of the proprietary handler combine to determine the payment of compensation for all services rendered.

**Table 7. Types of bargaining relationships when prices above the order minimums are sought, as reported by cooperatives and proprietary handlers.<sup>(a)</sup>**

Type of Relationship †	Percentage Indicating Existence of Each Type <sup>(b)</sup>	
	Co-ops	P. Handlers
The co-op offers a price and a package of terms and the handler must take it or leave it.	5	65
Usually favors the co-op to some degree; some negotiation and compromise occur.	6	14
Balanced evenly between the co-op and the handler so that two-way bargaining does take place.	61	13
Usually favors the handler to some degree; some negotiation and compromise occur.	28	—
The handler informs the co-op of what he will pay and related terms of trade and the co-op must take it or leave it.	—	—
Other	—	8
	100	100

(a) A dagger (†) indicates that cooperative and proprietary handler responses were significantly different at the 10 percent level based on a chi-square test.

(b) Respondents were asked to select only one of the six choices.

significantly different at the 10 percent level. This is the most important discrepancy between the views of cooperatives and proprietary handlers found in these data. Proprietary handlers definitely feel that the cooperative enjoys an advantage. It's important to ask here whether or not the proprietary handler perception is indicative of the true situation. It might well be that both groups have overestimated the nature of the relationship. In general the advantage would seem to lie with cooperatives but it is not as significant as proprietary handlers indicate because proprietary handlers do have supply alternatives which discipline cooperative behavior.

A series of scale questions were asked of both groups. These questions consisted of a statement followed by five choices indicating various levels of agreement or disagreement with it. The choices ranged from "strongly agree" to "strongly disagree." The responses of cooperatives and proprietary handlers to five such questions are shown in Table 8. In order to convert the individual responses to an average response the following assignment of values was made: "Strongly agree" equals 5, "agree" equals 4, "no opinion" equals 3, "disagree" equals 2, and "strongly disagree" equals 1. Therefore an average score on a particular question of greater than 3 indicates fairly strong agreement with the statement and scores below 3 indicate general disagreement. The intensity increases as one moves toward 5 or 1. Average scores near 3 indicate that

**Table 8. Attitudes about power, bargaining and pricing as reported by cooperatives and proprietary handlers.<sup>(a)</sup>**

Statement	Mean Score <sup>(b)</sup>	
	Co-ops	P. Handlers
* Proprietary handlers are in a stronger, more powerful bargaining position than co-ops in their dealings together.	3.1	1.8
* For the entire dairy industry, bargaining between co-ops and proprietary handlers yields marketing improvements which justify the costs of making those improvements.	3.6	2.8
The Associated Reserve Standby Pool Cooperative has enhanced the cooperative's bargaining strength.	(c)	3.6
* Dairy cooperatives have squeezed the margin received by processors of milk and dairy products to a critically low level.	2.0	3.1
In the past five years, co-ops have unduly enhanced price in our market.	(c)	3.4

(a) An asterisk (\*) indicates that cooperative and proprietary handler responses are significantly different at the 10 percent level based on a chi-square test.

(b) Mean score based on simple average of individual responses based on following scale: 1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, 5 = strongly agree.

(c) Question not asked of cooperative managers.

respondents had no strong feelings toward the statement.

The response to the first statement in Table 8 corroborates the answers shown in Table 7. Once again proprietary handlers feel that they are at a disadvantage in the bargaining process and cooperatives feel that the bargaining process is fairly equal. The second statement deals with the potential for the bargaining process to produce benefits for the entire dairy subsector. These benefits would normally arise from an exchange of information so that both parties are better informed. Product waste and transaction costs might be reduced and related improvements in subsector coordination made. Cooperatives felt that bargaining did yield significant improvements in these areas, while proprietary handlers were somewhat indifferent.

The Associated Reserve Stand-by Pool Cooperative (ARSPC), an organization created by several cooperatives in the Midwest and Southern regions, provides milk to cooperatives in the South in the fall and winter months when their supplies are short relative to demand. While the Stand-by Pool assists in coordinating the allocation of milk supplies across regions, it also has increased the power of some cooperatives relative to proprietary handlers. ARSPC has certain supplies in the upper Midwest under contract reducing their availability to proprietary handlers there.