

to negotiate producer prices for the purpose of obtaining higher net returns for member producers. Anyone of a number of existing interregional dairy cooperatives would fit this description.

Florida membership in an interregional cooperative was simulated using a modified version of the basic model. The procedure involved specifying the adjustments that were likely to result from the activities of an interregional cooperative and incorporating these adjustments into the basic model. The adjustments, which are the key assumptions underlying the interregional cooperative analysis, were based on market changes in the north central states that resulted from the activities of interregional cooperatives [9]. The experience in the north central states was felt to be representative of the changes that would occur if an interregional cooperative operated in Florida. The following adjustments were specified:

- a. Forty-two percent of the milk produced is marketed through the interregional cooperative ($PMC = .42$). The remaining 58 percent is sold by independent producers.
- b. Processor-oriented services provided by the cooperative enable the cooperative to negotiate a Class I premium (C1PR) of 30.5 cents per hundredweight on all milk.
- c. Processor-oriented services provided by the cooperative permit milk producers to reduce distribution costs (RDC) on member produced milk by 11.6 cents per hundredweight.
- d. To finance the producer-oriented services rendered by the cooperative, coop-member producers pay a service fee (retained by the cooperative) of 10 cents per hundredweight.
- e. Coop-member producers sell all their milk through the cooperative and independent producers sell all their milk independently of the cooperative.

Values in *a* through *d* reflect average adjustments on the north central region. Although there is little basis for selecting different values for Florida, market conditions in Florida could lead to different premiums, service fees and reduction in milk handling costs.

A condensed flow diagram of the milk production and processing segments of the cooperative model appears in Figure 7. The mathematical formulation is given in Appendix C. Symbols appearing in Figure 7 are the same as those in Figure 1 with the addition of the dashed line (— — —). The latter signifies that other variables in addition to the one from which the line originates affect the variable at which the line termi-