

cooperative and independent producers sell all their milk independently of the cooperative.

Processor-retailer integration :

- a. Integration of milk processing and retailing increases the efficiency of performing these functions. Hence, per unit processing and distribution costs for integrated plants are lower than for independent plants.
- b. Integration of processing and retailing activities does not affect the pricing of milk at the farm and retail levels.

Assumption *a* under processor-retailer integration was implemented by simulating three levels of efficiency. In addition, four milk allocations, which define the proportion of milk handled by integrated and independent plants, were simulated.

Conclusions

Results obtained with the simulation models support several conclusions. All conclusions are based on market conditions during the 1966-69 period.

Interregional Cooperative

Operation of an interregional cooperative in southeast Florida would have a negligible effect on the production of milk. Monthly milk production would be only 1 percent greater, Class I utilization between 1 and 1.4 percent greater, and Class II utilization about 3 percent greater than under a non-cooperative structure. Despite minor changes in milk production and utilization, net returns to producers would be on the average 38 percent per month or half a million dollars greater in the presence of a cooperative. Of this amount, member producers receive 38 percent or \$195 thousand and independent producers receive 62 percent or \$319 thousand. Considering that (by assumption) member producers account for 42 percent and independent producers account for 58 percent of total milk production, the above distribution of net returns seems inequitable. This occurs because all producers receive the Class I premium while only member producers pay a service fee to the cooperative.

Processor net returns would increase by about \$77 thousand over the entire 1966-69 period. However, net returns in six of the 16 quarters from 1966 to 1969 would be lower than in the absence of a cooperative. Monthly returns to retailers would be from \$5 to \$51 thousand or on the average 2.4 percent greater.