

Why Farmers Exit Dairying?

by Jack McAllister

Recently two agricultural economists from the University of Maine published a study in which they tried to determine what were the major factors which influenced the decision of dairy farmers in that state to exit dairy farming. Farmer's responses to a cost of production survey served as a basis for analyzing the return over variable cost (ROVC), technology usage, management, and efficiency characteristics of the individual farms. Technology usage or not included: AI, use of a personal computer to manage production or financial information, TMR machinery, scheduled veterinary visits, use of grazed pastures as the primary source of forage, or milking parlor or stanchion system for milking facilities. Herd size and herd milk productivity characterized production efficiency. Total asset turnover ratio, feed cost efficiency, and legal structure defined the measures of financial efficiency. Technology usage, production efficiency and financial efficiency variables were used to estimate ROVC. In a second analysis, predicted ROVC, age, education, on-farm relative to off-farm income and farm diversification among milk, crop and livestock sources were examined to predict the probability that a producer would choose to exit the dairy industry.

Usage of AI and the size of the herd were positively associated with ROVC while greater usage of pasture as the primary forage source and feed cost per cow were negatively associated with ROVC. Of the 11 variables chosen in an attempt to predict ROVC only these four were significant and still only about 10 % of the differences among the 65 herds in ROVC were explained by them.

The model seeking to explain the exit from dairying accurately predicted the outcome in 84% of the cases. The magnitude of off-farm relative to farm income was the primary indicator of probability to exit dairying. Predicted ROVC was also an important factor as was increasing age.

The probability of exiting dairying decreased by 2.16% for each \$0.13 increase in ROVC. As age above the average of the data increased by one year, the probability of the decision to exit dairying increased by 1.14%. There was a very slight indication that diversification of farm enterprises might influence the exit decision.

The authors had some recommendations regarding potential courses of action in states where dairy has been an important component of the agricultural economy. They included:

- 1) Linking exiting producers willing to transfer the farm outside the family with potential younger entrants to address both retirement issues and barriers to entry
- 2) Recognizing the influence of real or potential off-farm income and the time devoted to it on the decision to exit dairying

- 3) Recognizing the need for cost control (especially feed) and use of AI and larger herd sizes to earn higher returns over variable costs to lower the likelihood of exiting the dairy industry.