Dairy Farm Management Decisions

A principal effect of the milk price support program was to reduce one elementof risk for dairy farmers, extremely low milk prices. It did not remove other risks, such as high feed prices, loss of market for the individual producer, drought, floods, or disease. And it did not guarangee profits on milk production, as shown by the out-of-pocket losses of many dairy farmers during 1973-75 (Blayney, Miller, and Stillman 1995). Data from farm surveys allow for the description of farm management decisions that dairy farmers made to manage risk in agricultural production. Farmers can and do adjust their management decisions to changes in their working environment (e.g., a change in Federal policy). Previous decisions impact the farm's current physical, financial, and human capital stocks, and influence or even restrict the set of future decisions.

In 1993, operators were given lists of production, financial, and marketing strategies (fig. 1) and were asked to identify up to three strategies used in managing their farm. Strategies were not ranked by the respondent, and the list was not intended to be exhaustive. For some farmers the use of a strategy was not deemed important enough to list as one of the three choices, but elsewhere in the survey they may have indicated use of that strategy. As an example, a farmer may have participated in Government commodity programs, but did not identify Government programs as a production strategy. Provisions wer made to include these operators in the summarized data.

In 1996, dairy operators were asked which of nine strategies they would likely use, consider, or not use to improve the financial condition of their business if faced with financial difficulties (table 6). Forty-four percent of operators said they would restructure debt by lengthening the term or reducing the interest rate. Almost 57 percent indicated they would adjust the farm business' operating costs. Thirty-six percent would improve their marketing skills.

In 1996, operators also indicated that their management style had changed little from 1995. In addition, more than 50 percent of operators said that what changes they did incorporate in 1996 were not due to changes in farm programs.

Farmers can control exposure to risk by altering their business plans. In 1993, almost 62 percent of dairy farm operators said that they used a strategy to manage risk of production. About 56 percent indicated that they employed at least one financial strategy, and about 52 percent also used some marketing strategy.

Farmers use a variety of strategies to reduce the variability of risk in production of agricultural products, financial needs of the business, and marketing of the crops or livestock. Use of risk management strategies is correlated with the incomes received from farming. On average, farmers who used any of the strategies listed in the surveys had higher net incomes resulting from larger volumes of production and management of the risk assoicated with farming (Perry et al.).

Figure 1—Management decisions

Production decisions:
Diversification
Commodities with stable or low variability of income
Leasing/contracting inputs
Non-farm uses of land

Financial decisions:
Maintain borrowing capacity
Match maturity of loans to the time income is expected
Renegotiate or pre-pay loans
Insurance
Participate in Government programs

Marketing decisions:
Hedge or use futures markets
Contract the sale of commodities
Spread sales over year

Production Decisions, 1993

Production decisions center on product production given a limited resource base, on the production or cultural practices used, and on which (if any) crops or livestock to produce (fig. 2). Long-term decisions may include the production practices used, the production technologies adopted, or changes in the mix of crops produced (Perry et al.).

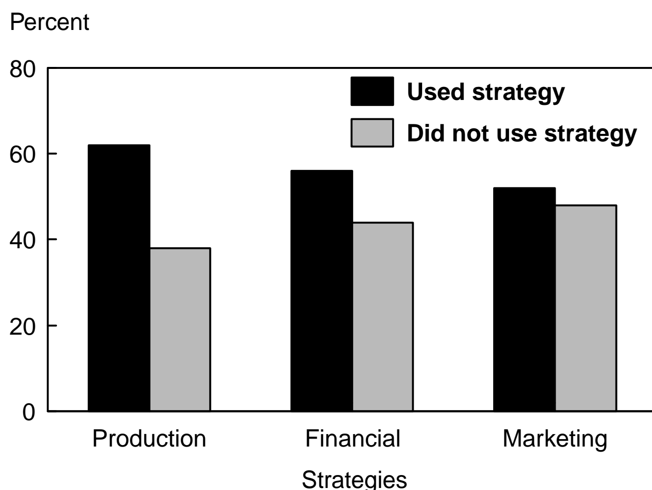
Dairy farm operators used a variety of production strategies in 1993 (fig. 3). Seventy percent of farm opeators used at least one production strategy. About 28 percent of dairy farmers using at least one production strategy said that they participated in Government commodity programs (app. tables 17-23). For example the relatively smaller farms in the Corn Belt, Northeast, and Upper Midwest regions that tend to grow their own feed likely depended on Federal feed grain programs to reduce the risks involved in feed grain production. Operators in regions like the Pacific purchased most, if not all, of their

Table 6—Use of management strategies by specialized dairy farms, 1996

Item		Would do			Would consider		Would not do	
					Percent of farms			
If faced with financial difficulties which would operator do:								
Restructure debt		44			35		13	
Sell assets		20			44		27	
Increase use of custom or leasing services		14			42		36	
Scale back farm business		14			38		39	
Diversify		17			39		37	
Spend more time on management		47			33		12	
Use advisory services		38			38		16	
Adjust operating costs		57			29		7	
Improve marketing skills		36			41		15	
	Used more	First time	Used same	Used less	Never, but considering	Never, not considering	Change due to farm program changes: yes	Change due to farm program changes: no
					Percent of farms			
Change in use last year:								
Contract sales	6	2	15	3	16	50	7	52
Spread sales	6	1	34	2	9	40	5	54
Diversification	5	3	21	3	18	42	8	56
Contract inputs	7	2	19	3	16	45	7	54
Keep credit lines open	11	4	55	5	4	7	12	60
Maintain cash on hand or assets that can be converted into cash	10	2	60	5	6	10	12	60
Hire work to be custom done	10	3	44	6	10	20	10	62
Hedge or use futures/options	2	2	7	3	19	60	6	50

Source: Compiled by the Economic Research Service from the 1996 Agricultural Resource Management Study, USDA.

Figure 2
Production strategies used most often



Source: Compiled by the Economic Research Service from the 1993 Farm Costs and Returns Survey, USDA.

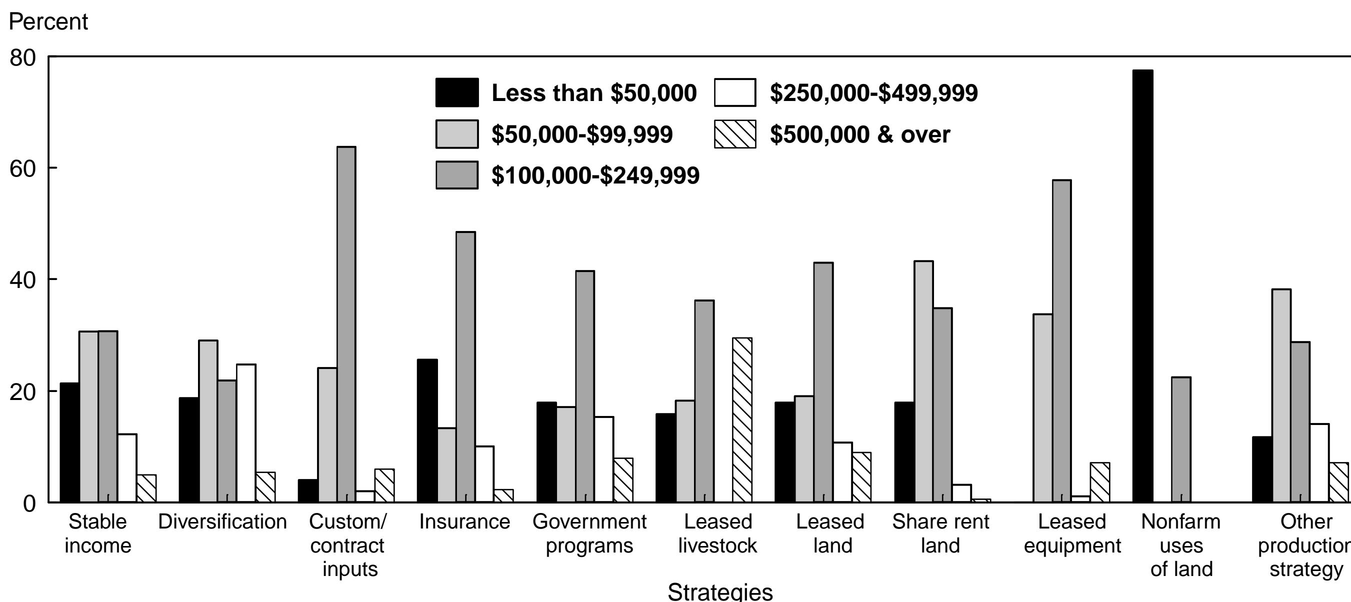
production inputs and thus did not depend as heavily on Federal programs to lower production risks.

The next most often cited strategy was leasing land, followed by choosing to produce a commodity that results in a relatively stable income. Dairy businesses often derive income from producing and selling commodities other than milk (e.g., corn, soybeans, oats, etc.). Production strategies were most popular with operators of farms with sales of $250,000 to $499,999, with more than three-quarters of operators in this group indicating use of at least one production strategy.

Financial Decisions, 1993

Financing the farm involves decisions about the sources of and terms under which resources are acquired for production, including debt capital used to purchase operating and capital inputs. Financial decisions determine the commitments made by the farm to service outstanding debt or to pay the fixed costs of leases. Financial commitments, whether for the purchase of operating inputs or of

Figure 3
Production strategies used, by size of dairy farm, 1993



Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

longer term assets such as machinery and equipment, are somewhat difficult to adjust in the short term.

Financial strategies were employed by 56 percent of dairy farmers. Keeping an open line of credit was the most frequently cited financial strategy, followed by maintaining equity in cash. Over 80 percent of farmers with gross sales of $250,000 to $499,999 indicated that they used financial strategies (app. tables 17-23) (fig. 4). Farms with sales of $250,000 and over were more likely to have renegotiated a loan. Survey data for 1993 indicate that financial strategies were most often employed by farm operators who specialized in cash grains (64 percent), followed by dairy farmers (Perry et al).

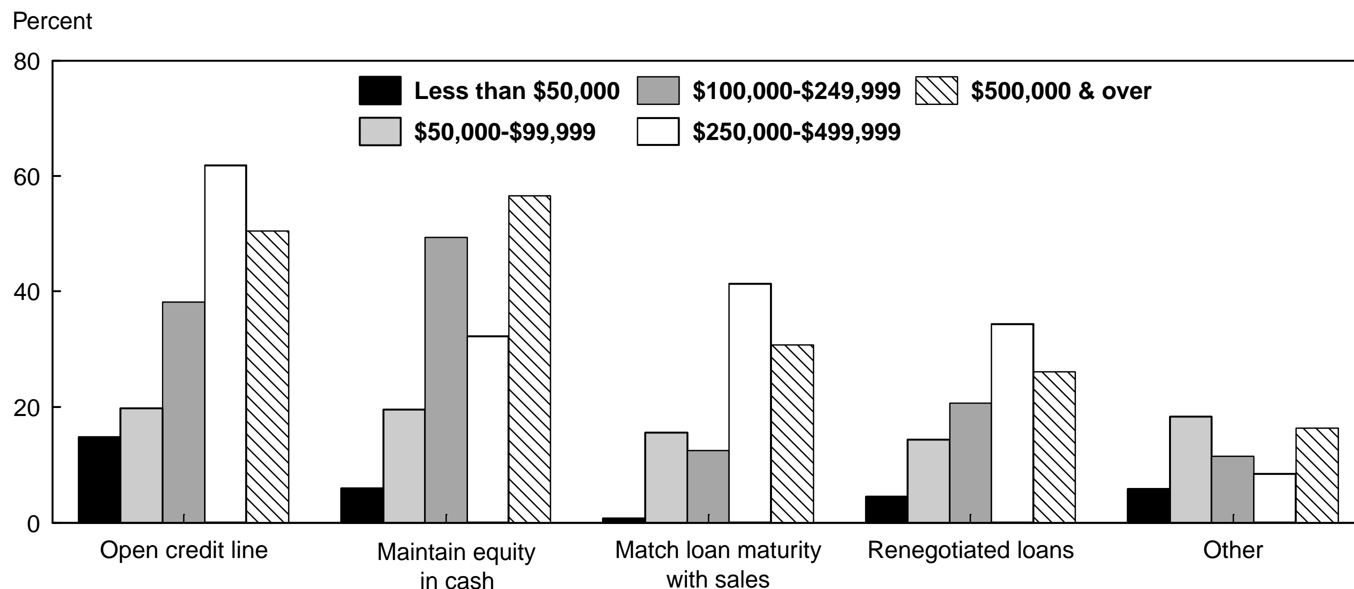
Marketing Decisions, 1993

Marketing decisions focus on buying the farm's inputs and selling its products. These functions establish the farm's terms of trade, that is, the prices it pays for production inputs relative to the prices it receives for the sale of its products. As a result of changes in these prices, farmers may try different approaches to marketing or identifying new markets. Marketing decisions affect profitability and risk.

Marketing strategies (hedging, contracting the sales of crops or livestock, spreading sales over the year, contracting or agreeing on prices for inputs to be delivered in the future, etc.) are commonly used by specialized dairy businesses (app. tables 17-23) (fig. 5). Farmers with sales in the two larger sales classes used marketing strategies more often than others. Spreading sales of farm products over the year was the most frequently cited marketing strategy. Hedging was the least used strategy, probably because of its speculative nature, and the size and type of contracts. Fifty percent of the farm operators in the largest sales class indicated that they contracted the sale of their products as a marketing strategy. As expected, these patterns were fairly consistent across the six milk production regions.

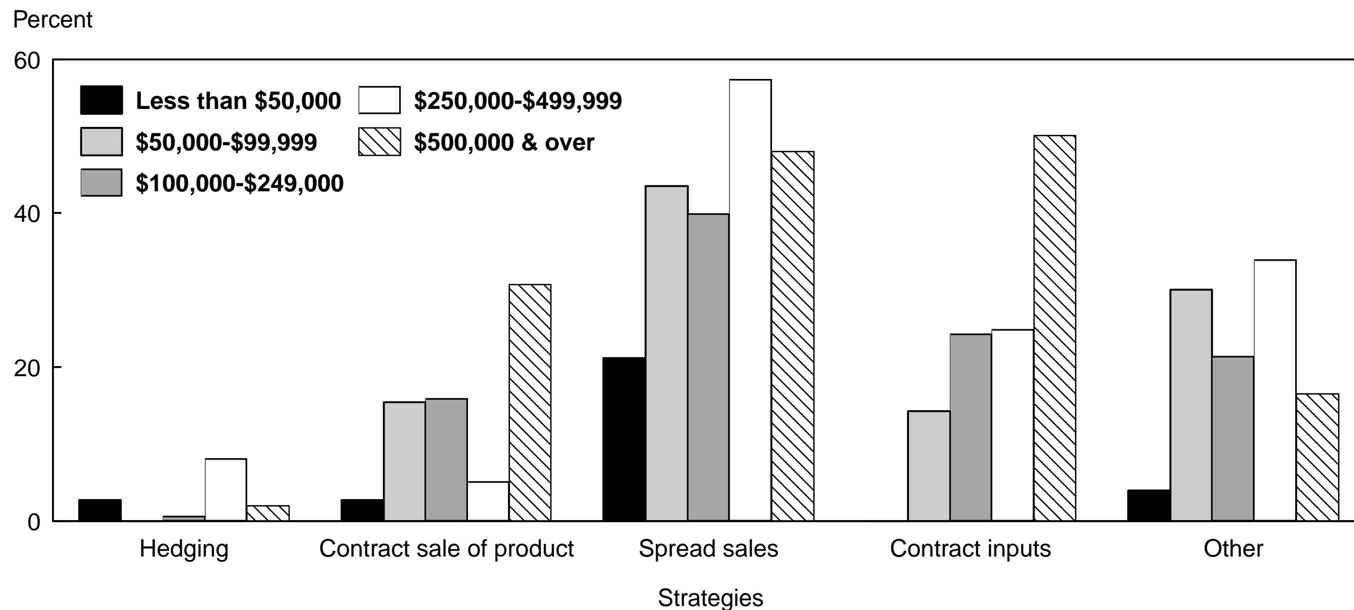
A relatively large share of the milk produced in the United States is moved through marketing channels by cooperatives (Manchester and Blayney). There are two basic types of dairy cooperatives today—bargaining-only and manufacturing/processing. The bargaining-only cooperatives negotiate prices and terms of trade for their members' milk. These cooperatives rarely take title to members' milk and do not own manufacturing or processing plants. Manufacturing/processing cooperatives market some or all of their members' milk through their own processing and manufacturing facilities, and/or bargain for prices.

Figure 4
Financial strategies used, by size of dairy farm, 1993



Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Figure 5
Marketing strategies used, by size of dairy farm, 1993



Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.