# Differences in dairy income due to feed, debt, and milk production

BY LARRY C. JENKINS
Penn State
Extension Economist

Pennsylvania dairy farms differ widely in terms of net farm earnings and the capacity to support a farm family. Of the state's dairy farms 25 percent are highly profitable. An additional 53 percent earn moderate profits. A third group, representing about 20 percent of Pennsylvania dairy farms, are barely paying cash expenses.

The difference in earnings among dairy farms is largely explained by three factors: efficiency in use of feed, size of farm debt, and level of milk production per cow. All these influence cost of production and net farm income.

The cost of producing milk varies inversely with net farm income, that is, farms with low production costs usually have higher than average earnings. In contrast, high cost of production farms are characterized by low earnings.

There is a substantial difference in cost of producing milk on Pennsylvania dairy farms. That difference covers a range from a low of $10.00 per cwt for a group of low cost-high earnings farms to a high of $13.36 per cwt of milk produced for a group of high cost-low earnings farms.

The cost measure used is cash expenditures including feed, veterinary and medicine, supplies, utilities, and five other cash expense items. Overhead (fixed) costs such as depreciation and property taxes are not included in the cost measure. If these overhead cost items are included, they would add $1.75 to $2.50 per cwt to cost of producing milk, depending on the type of facilities and equipment available and how intensively those facilities are used.

The cost figures quoted come from a summary of financial information from 718 Pennsylvania dairy farms. That summary also indicated a wide range in net farm income. One group of low cost-high return tarms averaged net earnings of $538 per cow. A second group of farms that had high cost and low net returns reported earnings of only $52 per cow. The income difference of $486 is largely explained by differences in expenditures for purchased feed, size of debt, and level of milk production.

Spending for purchased feed varied from a low of $409 per cow on high earnings farms to $528 per cow on low earnings farms. The $119 difference is apparently related both to the physical quantity of feed purchased and efficiency in use of that feed. The low earnings farms spent $4.06 per cwt of milk produced for purchased feed. Since there were only minor differences in crop yields and feed crop acres per cow among the low and high earnings farms, this difference is apparently not due to variation infarm feed production.

Size of debt and interest expense is a second reason for net income differences among dairy farms. High earnings farms are characterized by relatively small debt and low interest expense. Among the farms included in this study, the high earnings group averaged debt per cow of $1,379 and annual interest expense of $124 per cow. In contrast, the low earnings group of farms had a debt of $2,941 per cow and interest expense of $288 per cow.

Differences in milk production also play an important part in earnings differences on Pennsylvania dairy farms. High earnings farms averaged milk sales of 14,065 pounds per cow. Milk sales averaged only 13,031 pounds per cow at the low earnings farms. The difference in milk production resulted in a difference of $97 per cow in gross milk sales.

The three factors outlined—purchased feed, size of debt, and level of milk production—account for nearly 80 percent of the net cash income difference between high earnings and low earnings dairy farms. The remaining difference is explained by several factors including expense for veterinary and drugs, supplies, utilities, repairs, and miscellaneous items that reflect general management efficiency. It seems that low earnings farms are not as well managed as the high earnings farms.

The high earnings farms included in this summary were composed of 187 units or 26 percent of the total group of 718. The low earnings group included 154 farms and represents 21 percent of the total.

A mid-earnings group was composed of 377 units or 53 percent of the total farms included in the summary. This middle earnings group had net farm income of $295 per cow, cash cost per cwt for producing milk of $11.43 and milk production per cow of 13,953 pounds.

# DHIA meeting March 10-15

PHOENIX, Az. — The 1985 Dairy Herd Improvement Association (DHIA) convention will be held March 10 to 15 in Phoenix, Arizona. Convention planners expect a record attendance and are working hard to make it a memorable event for conventioneers from all over the country.

To help kick off the convention, the Arizona Holstein Association has rescheduled its annual Black & White Weekend show, sale, dinner and western barbeque. Regularly held in February, it will begin Friday, March 8, so interested DHIA members can arrive a few days early and take part in that activity.

The convention itself will start with an annual board of directors meeting on Sunday, March 10.

Convention headquarters will be the Hyatt Regency Hotel, located in the heart of Phoenix, the nation's ninth largest city, and program sessions will be held across the street in the newly expanded Phoenix Civic Plaza complex. The planning committee has arranged special low rates on rental cars for visitors who wish to tour the area on their own. Also, but tours have been arranged to various points of interest, including the Arizona Dairy Company's production facility and the headquarters of the nation's first reclamation system, the Salt River Project.

Delaware dairy farmers interested in attending the convention should contact University of Delaware extension dairy specialist Dr. George Haenlein (302-451-2523).

# Lackawanna plans tomato session

NEWTON—An all-day program on tomato production and marketing will be held Thursday, Dec. 6, from 10 a.m. to 3:30 p.m. at Thompson's Dairy Bar on the Newton Ransom Boulevard at Newton in Lackawanna County.

The speakers include Peter Ferretti, Penn State Extension vegetable specialist who will evaluate the tomato varieties grown in four locations in Pennsylvania last year. Also on the program are Kathy Demchak, research assistant in plant nutrition at Penn State; Dr. Alan MacNab, Extension plant pathologist and James Garrahan, Pesticide Coordinator, Department of Agriculture.

All commercials growers producing processing or fresh market tomatoes are invited to attend to get the latest results on research conducted by Ms. Demchak in Lackawanna County on the most efficient production relative to the number of plants per acre. Dr. MacNab will explain the identification and control of bacterial diseases on tomatoes.

Reservations for the meeting and lunch must be made by sending $6.50 with your name and address to the Lackawanna County Cooperative Extension Association, 200 Adams Avenue, Scranton, Pa. 18503 by Friday, Nov. 30.