

# Trend Indicates More Cows And Fewer Dairy Farms

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COLLEGE PARK, Md. — A long-term trend toward larger but fewer dairy farms and fewer total dairy cows in Maryland, Pennsylvania and many other states in the United States has been consistently indicated during the post-World War II dairy adjustment period. Since 1954, milk cow numbers in Maryland have declined from an all time high of 240,000 cows to nearly 125,000 milk

cows in 1987.

A projection of what could happen in the future assuming a continued decline in the number of cows from 125,000 in 1987 to approximately 100,000 cows in 1995 or later and a continued shift toward more cows per farm is shown in Table 1. Fewer farms with milk cows could release labor and other economic resources to other sectors of the economy and help reduce total cow numbers and total milk output.

It is evident from the above future projection table that only 1,000 dairy farms might be needed in Maryland in the year 2000 with an average herd size of 100 cows per farm, and only 667 farms would be needed with an average of 150 milk cows per farm. This should not be interpreted to infer that all dairy farms in Maryland in the future will be 100 to 150 cows in size. A range in herd sizes has always existed and will continue to exist in the future, but the average size of dairy herd will continue to expand.

Because of the external and internal economies already being achieved by some Maryland dairymen up to the 150 to 200 cow herd sizes, and the potential economies from the introduction and utilization of additional improved production technology, it seems reasonable to assume that the surviving Maryland dairymen will continue to expand the average number of cows in their herds in their efforts to improve average numbers of cows per worker in the business through the substitution of labor-saving capital inputs for expensive human labor inputs.

What has happened in past Maryland dairy farm resource adjustments and reorganizations since the 1950's has been a slightly increasing average labor force size of nearly three full-time equivalent workers per farm with more and better capital investments which permit more cropland, pasture and cows and heifers handled per farm and increased human resource productivity and greater net labor and management returns.

As the size of cow herd increases, the average number of cows per man generally increases up to the point where farm labor is fully utilized. Large crop-dairy farms, 150 to 199 cows, in Maryland in the mid-1980's had an average of nearly 44 cows per man, which was nearly 50 percent above the 30 cows per man average for all commercial dairy farms in Maryland. As the average number of cows per man increases, the number of workers required to handle the dairy cows on farms decreases if total cow numbers are stable, declining or increasing only slowly (Table 2).

If the number of cows per man continues to increase from the present Maryland state commercial dairy farm average of approximately 30, then some of the workers presently required to do the crop and livestock farm work will be released for other types of farm and nonfarm employment. It seems reasonable to expect that many dairymen with moderately large cow herds will likely achieve

higher levels of cows per man in the future than in the past as new production technology is incorporated into the business structure, and improved work methods, and new methods of financial and business organization are adopted.

Changing dairy farm business numbers and sizes, and total dairy farm employment, need to be considered carefully in future farm planning at various local, county, state and regional levels. While past dairy farm reorganizations have been substantial, the resource adjustment process does not appear to be fully completed at this time in Maryland. Assessments by the federal government to help finance the existing dairy support price and commodity storage system will require dairymen to re-evaluate their whole farm business and locate potential areas of cost reduction.

The trend toward higher amounts of milk sold per cow in Maryland (DHIA average of 16,300 pounds in 1986) enables dairymen to increase milk sold per worker annually. When higher milk per man is needed to generate higher net farm incomes, the combination of higher number of cows per man and higher output of milk per cow is essential. Maryland dairymen have been successful in raising their average milk sales per worker over time, and especially in the past several years, with more and better cows.

Table 1. Relation Between Cows Per Farm and Number of Dairy Farms Needed in The Future With an Assumed 100,000 Milk Cow Population, Maryland, Future.

Total Milk Cows in Maryland	Cows per farm	Potential Number of dairy farms
100,000	200	500
100,000	150	667
100,000	100	1,000
100,000	80	1,250
100,000	65	1,538
100,000	50	2,000
125,000	50	2,500

(est. Jan. 1, 1987)

Table 2. Relation Between Cows Per Man and Total Number of Farm Workers Required to Handle An Assumed 100,000 Cow Population, Maryland, Future.

Total dairy cows in Maryland	Cows per man	Potential Total Number of farm workers required
240,000 (1954)	15	16,000
120,000	30	4,000
100,000	20	5,000
100,000	25	4,000
100,000	30	3,333
100,000	40	2,500
100,000	50	2,000
100,000	60	1,700

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