



The Challenging Future Of Maryland Dairy Farms

Maryland dairy farmers face many challenges that put the future of their operations in question. University of Maryland researchers Howard Leathers and Dale Johnson examine the factors behind the problem and point to critical steps that both farmers and government leaders can take to stem or reverse the decline of dairy farms in Maryland.

AT A GLANCE

- Howard Leathers and Dr. Dale Johnson of the University of Maryland's Department of Agricultural and Resource Economics have researched the current context of the industry and conclude that the number of Maryland dairy farms will continue to decline.
- To compete with ethanol plants, dairy farmers need to pay corn farmers higher prices. Because of this connection, as global oil prices increase, the costs to run a dairy farm rise too.
- Americans are consuming less milk every year, opting instead for cheese or soy milk. The rising demand for cheese however is most likely to benefit the larger western state farms with lower per unit costs.

Glance continued on page 2



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The Maryland dairy industry faces unprecedented challenges. Demand for milk, both nationally and in the mid-Atlantic, is declining. Dairy technology advances mean that this declining demand can be met with fewer cows and, in order to cut costs, fewer farms. Finally, production of dairy products, such as cheese and butter, is dominated by producers in lower-cost states in the Midwest and far West. Dr. Howard Leathers and Dr. Dale Johnson of the University of Maryland's Department of Agricultural and

Resource Economics have researched the current context of the industry and conclude that the number of Maryland dairy farms will continue to decline.

The problem does not have a simple solution, because decreasing demand for fluid milk is not a Maryland phenomenon; it is a nationwide trend. There are several reasons for this. Milk prices have actually been rising due to an increase in production costs at the farm level. Corn, the primary feed for cattle, is facing increasing demand for use in ethanol production. Thus dairy

Glance continued from page 1

- On a University of Maryland Extension's survey, farmers cited land costs, low profitability, urban development, labor availability, government regulations, and nutrient management laws as the major limits to farm growth and improvement.
- Management-intensive grazing, through which the herd is moved to graze in different plots over time, allows the farm to efficiently manage its foraging land and avoid the rising cost of corn.
- This grazing practice generates substantial cost savings for farmers, improves the health of cows, and promotes greater output per cow.
- To support improved dairy profitability, Maryland should subsidize current production and cost outlays. However, if the state wants to retain dairy farms now, a lump-sum program might make more sense.



PHOTO: NAVEED MALIK

Prof. Dale Johnson discusses the milking parlor system with a student and one of the farmers at Deerspring Farm in Maryland.

farmers need to pay corn farmers more to not sell their crop to ethanol plants. As global oil prices increase, the costs to run a dairy farm rise too. Due to higher costs for both corn and oil, dairy farmers need higher milk prices to maintain profitability. Higher prices imply that customers would buy less and less milk.

Demographic pressures exist, too. Americans are consuming less milk every year, opting instead for cheese or soy milk. While a growing national population might be expected to balance out this trend, the number of children in the mid-Atlantic region is predicted to decline in the next decade. Since children account for a large percentage of milk consumption, it appears that the market will shrink. The demand for cheese is predicted to rise in coming years, so Maryland dairy farmers could focus more on producing cheese. However, Leathers and Johnson suggest that cheese production will not be a solution: the rising demand will be met by larger farms operating in the western

part of the country on larger ranches and lower per unit costs.

Production costs are also changing. Advances in genetics and technology have boosted the output of milk per cow. Even if milk demand remained constant, it would be met by fewer cows and fewer farms. Thus, a higher output per cow may be good news for farmers who are already operating; but it may be detrimental to new farmers or small farmers who cannot afford larger herds or better technologies.

The size of the farm (or the size of the herd) is also an extremely important factor in determining farm profits. Numerous studies have shown that larger herds have lower per-unit operating costs. Combining this insight with the fact that larger herds imply a larger revenue stream, it is natural that larger farms would be more profitable. The average Maryland farm is much smaller than its Western or Midwestern counterparts, and encroaching suburban development and higher unit land costs make it unlikely that a Maryland farmer



PHOTOS: NAVEED MALIK

Feed is stored under white tarps at Deerspring Farm. Feed is a blend of corn by-products.

can increase his herd. In a survey of dairy farmers by the University of Maryland Extension about limits to farm growth and improvement, farmers cited land costs, low profitability, urban development, labor availability, government regulations, and nutrient management laws. Leathers and Johnson also found that smaller farm tend to suffer from management mistakes and incur additional costs through sub-optimal management.

A shift towards management-intensive grazing can lead to lower input and operating costs and higher revenue from each cow, increasing the profitability of the farm.

Leathers and Johnson suggest several solutions to slow or reverse the decline in Maryland dairy farming profitability. Management-intensive grazing, through which the herd is allowed to graze in different plots at a time, allows the farm to efficiently manage its foraging land and avoid the rising cost of corn. Studies have shown that this grazing practice generates substantial cost savings for farmers, improves the health of cows, promotes greater output per cow, and allows smaller herds to become economically viable. A shift towards management-intensive grazing can lead to lower input

and operating costs and higher revenue from each cow, increasing the profitability of the farm.

Extension education could be very important here. Helping Maryland farmers explore new options and avoid the pitfalls of sub-optimal management practices could increase farm viability. Such programs have been used with success in Pennsylvania, as dairy farmers there have become increasingly competitive with other mid-Atlantic states.

Government programs may also help the industry. Leathers and Johnson emphasize that, to benefit Maryland farmers, most needed policies must be enacted at the state level because national dairy subsidies tend to boost the larger and lower-cost Western or Midwestern farms. Export subsidies could prop up domestic production; however subsidies on farm items are hotly contested in the international community. Leathers and Johnson have analyzed the best dairy support policies for Maryland, considering both “lump sum” payments and output-based payments. If farms are to improve profitability, the state should subsidize current production and cost outlays. However, if the government does not want farms to go out of business, then lump sum payments might make more sense.

Leathers and Johnson also explored a need-based subsidy. Large farms may be financially healthy and



farms with higher profitability, then it should provide incentives for larger herd size. However, if the government is more concerned with preserving the traditional small farmers, then lump sum payments may be needed to ensure their survival. Long-term initiatives like Extension education programs and management-intensive grazing should also be pursued to make Maryland dairies more competitive. These efforts, individually and in combination, may help slow the decline of farmers and farms from the Maryland dairy industry. ■

do not require government help. The conflict is then between allocating taxpayer money to larger farms and increasing their profit margins or allocating the same money to smaller farms and assuring them a profit margin. Also, some smaller farms are a part-time income-generating activity for several farmers; subsidies should be targeted away from them towards small farmers for whom dairy farming is the prime livelihood.

Thus, Leathers and Johnson assert that state policies must be carefully targeted. If Maryland wants to increase its milk production and encourage larger

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You can also read more in Howard Leathers, Dale Johnson, and Bob Peters, "Long Term Outlook for the Maryland Dairy Farm Sector," Attachment 1 of Maryland's Dairy Industry 2007: A Report to Governor Martin O'Malley.



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