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## Abstract

Some dairy industry observers claim that many farmers are about to abandon dairy farming, that older operators are leaving the business without finding anyone to take over, and that land is being converted to other uses. The New York Dairy Farm Transition Survey was designed to gather information related to these concerns. Results support a more optimistic view of the future of the state's dairy industry, although succession problems and loss of farmland to residential and other nonfarm uses will challenge some farming operations.

#### 2002 New York Dairy Farm Transition Survey

By Dan Conable and Maynard Miran

#### Introduction

Rapid milk production growth in the West has promoted debate about the future of the dairy industry in traditional dairy regions including New York State. Based on observation, some dairy industry watchers maintain that many farmers are about to abandon dairy farming, that older operators are leaving the business without finding anyone to take over, and that land is being converted to other uses. In January 2002, the New York State Department of Agriculture and Markets mailed a survey to a statistical sample of all New York State dairy farm operators to gather information related to these concerns. The Dairy Farm Transition Survey (DFTS)<sup>1</sup> results support a more optimistic view of the future of the State's dairy industry, although succession problems and loss of farmland to residential and other non-farm uses will challenge some farming operations.

The survey was conducted post September 11th at a time when milk prices were declining. The Federal Statistical Uniform Price<sup>2</sup> for milk delivered to Syracuse at the time of the survey's mailing (January 2002) was \$12.97 per hundredweight, down from \$17.01 in September 2001. Despite lower prices, producer plans for the future remained optimistic.



Maynard 'Moe' Miran

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Maynard 'Moe' Miran is senior economist for the Division of Milk Control and Dairy Services at the New York State Department of Agriculture and Markets. He assists in providing the Department with economic and statistical analyses to help set policy to ensure an adequate and safe supply of milk and dairy products throughout New York. He also works closely with the New York State Dairy Promotion Advisory Board.

#### Results

Survey responses were obtained from about two-thirds of the 900 dairy farmers sampled. Statewide results were analyzed and adjusted to indicate how all New York State dairy farmers would respond if they had each received a survey.

The average New York dairy farm operator's age is early fifties, has been a farm operator for more than two decades, and has worked in the dairy industry for nearly all of his or her adult life. 48 percent of the state's dairy farmers plan to expand their herds in the next two years, while 45 percent expect to maintain their current scale of operations. Only 7 percent expect to decrease their herd or stop milking cows. Average projected herd sizes for all farmers who expect to be in business in two years raise the statewide herd size average from ninety-eight to 118 cows. Significant expansions are planned by a majority of operators in every size category, from the smallest dairy farms to the largest.

Four out of five dairy farmers expect their farms will continue as commercial farms when they relinquish control. Three out of five expect their farms to continue as dairy farms. There are notable regional differences in farmers' expectations about the future of their farms. Ninety-two percent of dairy farmers in the western part of the state expect their land will be farmed when they leave the business. This expectation drops to 62 percent in the southeastern region.

Of those who expect their farms to continue operating, 52 percent expect the farm to go to one of their children and 15 percent to another relative or someone else now involved in the farm operation. Sixty-four percent expect ownership to be retained within their family. While only 28 percent of all dairy farm operators have consulted a lawyer, accountant or other expert about arranging the transfer of the farm once they relinquish management, the percent increases by age of respondent. Sixty-six percent of those 65 years and older have conferred with a professional about arranging the possible transfer of the farm in the future.

One-third of current dairy farm operators have been approached during the past three years to rent or sell their land, either for agricultural or other uses. Interest in dairy farmers' land from other farmers is lowest in the southeastern part of the state and highest in the northern region. The situation reverses for interest in buying land for non-agricultural uses, particularly residential use. There appears to be some relationship between how long a dairy farmer plans to stay in business and the level of outside interest in the use or purchase of his or her land.

#### Survey Methodology and Analysis

The Dairy Farm Transition Survey (DFTS) was mailed in January 2002 to a stratified random sample of 900 dairy farm operators drawn from the National Agricultural Statistics Service list of 7,149 dairy farms in New York State. Follow-up phone calls were made to non-respondents in February. Sampling rates varied from about 6 percent of farms believed to be milking thirty to forty-nine cows up to 75 percent of those farmers with 500 cows or more. The higher sampling rate of larger herd sizes was intended to permit drawing statistically valid conclusions from the relatively small number of farms in those categories. Farms with less than 30 cows, according to the NASS database, were not sampled. A small number of DFTS respondents reported having herds of less than 30 cows at this time. Overall response rates were evenly distributed by herd size and geographic location, averaging about two-thirds of those contacted in each category.

Figure 1: Dairy transition survey regions.



Data were analyzed principally in relation to milking herd size (less than 50, 50-99, 100-199, 200-499, and over 500 cows), age of farm operator (under 35, 35-44, 45-54, 55-64, 65 years and older), and region of the state (see Figure 1). No responses were received from any of the small number of dairy farms located in the New York City metropolitan area and Long Island.

While sample sizes were large enough to draw valid conclusions within herd size categories, the sampling plan led to some over-representation of larger farms in the total group of respondents. Table 1 compares the survey sample with National Agricultural Statistics Service (NASS) estimates for the total New York dairy industry in mid-2001.<sup>3</sup>

Percentages in this report represent actual survey results, but table totals have been adjusted to reflect the NASS estimate of the actual herd size distribution in the industry.

#### Age and Experience of Dairy Farm Operators

The average age of New York dairy farmers was fifty-two. This average compares to an average age of all New York farmers of 53.5 (1997 Census of Agriculture).<sup>4</sup> The average age varies only slightly (between 50.8 and 52.6) among herd size categories. Average operator ages are also similar across regions, except that dairy farm operators in the northeast region have an average age of about fifty-seven. Dairy farm operators average thirty-two years of experience working as adults on dairy farms. This experience was also quite uniform among farm size categories. Comparing the number of years of experience with age indicates that the vast majority of dairy farm operators have worked on dairy farms for their entire adult lives.

Farm operators reported operating their current farm for an average of 25.7 years, with little variation by farm size, but some variation by region (Figure 2). The 1997 Census of Agriculture gives an average of 21.4 years on the operator's

Table 1: Number of survey respondents, and NASS estimate of number of NYS operations.

|                          | Herd Size |        |         |         |          |         |
|--------------------------|-----------|--------|---------|---------|----------|---------|
|                          | Under 50  | 50-99  | 100-199 | 200-499 | 500 plus | Total   |
| Number of Respondents    | 116       | 195    | 101     | 109     | 71       | 592     |
| %                        | 19.60%    | 32.90% | 17.10%  | 18.40%  | 12%      | 100.00% |
| Number of NYS Operations | 2,500     | 2,800  | 1,300   | 470     | 130      | 7,200   |
| %                        | 34.70%    | 38.90% | 18.10%  | 6.50%   | 1.80%    | 100.00% |

Figure 2: How many years have you been operating this farm? All farm operators - 25.7 years.

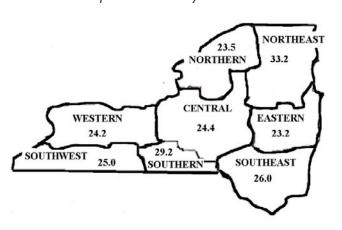


Table 2: Producer's expectations by size of herd.

| Current Herd<br>Size | Increase<br>Herd | No<br>Change<br>in Herd | Decrease<br>Herd | Go Out of<br>Business |
|----------------------|------------------|-------------------------|------------------|-----------------------|
| Under 50             | 48%              | 43%                     | 2%               | 7%                    |
| 50-99                | 38%              | 56%                     | 1%               | 4%                    |
| 100-199              | 41%              | 53%                     | 1%               | 5%                    |
| 200-499              | 74%              | 25%                     | 1%               |                       |
| 500 plus             | 88%              | 12%                     |                  |                       |
| All Farms            | 48%              | 45%                     | 2%               | 5%                    |

current farm for all (dairy and non-dairy) farmers in New York State.<sup>4</sup>

Operators reported their farms have been in their families for an average of 2.5 generations, with the average number of generations for the larger farms approaching three.

#### Expectations about Herd Size

Dairy farm operators were asked to report how many cows they are milking today, and how many they expect to be milking in two years. Of those who forecast their herd size in two years, more then 90 percent expect to expand or maintain their herds at their present size (Table 2).

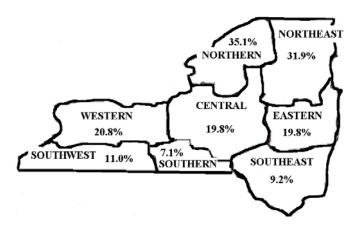
Of those farms that reported they expect to be milking cows in two years (537 operators), the average projected herd size is larger in all size categories (Table 3).

Growth expectations differ considerably by region, with the most optimistic projections in the northern and northeast regions, and the most modest growth expectations in the southern and southeast regions (Figure 3).

#### Expectations about the Future of the Farm

The survey asked dairy farmers how much longer they expect to operate their farm. Nineteen percent said one to three more years, 24 percent said four to nine more years, and 57 percent said more than ten years. Most farmers, including those at what

Figure 3: Expected growth in herd by region, 2002 - 2004.



might be considered "retirement age," expect to continue as the main operator for many years to come.

Most dairy farm operators expect their farm to continue operating as commercial farms when they relinquish management of the operation. The larger the current herd size, the more likely it is to continue both as a commercial farm of some sort, and as a dairy farm in particular.

Expectations about whether the dairy farm will continue to operate either as a dairy or another type of commercial farm vary considerably by region; dairy farmers in the western region are most confident that their farms will continue to function as commercial enterprises and those in the southeast least confident (Table 4.)

Those who expected their farms to continue to operate as commercial farms in the future were asked who they thought would operate the farm after they relinquish management. The operators of larger dairies were more likely to expect that one or more children would take over the business than the smaller farms.

Larger farm operators are more likely to expect full or part ownership of the farm to stay in the family, and to have sought professional advice about farm succession. (Tables 4 and 7)

Older operators were more likely to have consulted a lawyer, accountant or other expert, but one-third of those over sixty-five had not done so (Table 5).

Those farmers planning to turn over the farm to a relative are more likely to have consulted with an expert about succession planning issues than those planning to turn it over to someone else now involved in the business or an outsider. However,

Table 3: Average herd size by size category.

|           |                        | Diary Transition Survey - February 2002 |                 |          |
|-----------|------------------------|---|-----------------|----------|
| Herd Size | NASS 2001 <sup>3</sup> | Current (2002)                          | Expected (2004) | % Change |
| Under 50  | 27                     | 37                                      | 45              | 22%      |
| 50-99     | 70                     | 68                                      | <i>7</i> 8      | 15%      |
| 100-199   | 140                    | 136                                     | 158             | 16%      |
| 200-499   | 257                    | 293                                     | 365             | 25%      |
| 500 plus  | 827                    | 822                                     | 1001            | 22%      |
|           |                        |   |                 |          |
| All Farms | 93                     | 98                                      | 118             | 20%      |

Table 4: "When you stop operating the dairy farm, what will happen to the farm?

|              | Continue as a dairy farm by someone else | Operate as<br>another<br>type of<br>commercial<br>farm | No longer<br>operate as<br>a<br>commercial<br>farm |
|--------------|--|--|--|
| All Farms    | 60%                                      | 19%  | 21%  |
| Herd<br>Size |  |  |  |
| Under 50     | 43%                                      | 23%  | 35%  |
| 50-99        | 63%                                      | 16%  | 21%  |
| 100-199      | <i>7</i> 9%                              | 6%   | 15%  |
| 200-499      | 83%                                      | 4%   | 13%  |
| 500 plus     | 93%                                      | 3%   | 4%   |
| Region       |  |  | •  |
| Western      | 82%                                      | 10%  | 8%   |
| Northern     | 72%                                      | 8%   | 20%  |
| Northeast    | <i>7</i> 1%                              | 14%  | 14%  |
| Central      | 66%                                      | 12%  | 22%  |
| Eastern      | 64%                                      | 16%  | 20%  |
| Southwest    | 64%                                      | 12%  | 24%  |
| Southern     | <i>7</i> 0%                              | 1 <i>7</i> %   | 13%  |

Table 6: "Do you expect part or full ownership to be retained in your family?"

| Herd Size | Yes         | No           |
|-----------|-------------|--------------|
| Under 50  | 54%         | 46%          |
| 50-99     | 72%         | 28%          |
| 100-199   | <i>7</i> 1% | 29%          |
| 200-499   | 83%         | 1 <i>7</i> % |
| 500 plus  | 81%         | 19%          |
|           |             |              |
| All Farms | 64%         | 36%          |

Table 5: "Have you consulted a lawyer, accountant, or other expert about arranging for someone to take over your farm?"

|               |   | res - |  | No          |
|---------------|---|-------|--|-------------|
| All Farms     | 2 | 28%   |  | 72%         |
|               |   |       |  |             |
| Herd Size     |   |       |  |             |
| Under 50      | 1 | 6%    |  | 84%         |
| 50-99         | 2 | 24%   |  | <i>7</i> 6% |
| 100-199       | 4 | 3%    |  | 57%         |
| 200-499       | 6 | %0%   |  | 40%         |
| 500 plus      | 6 | 6%    |  | 34%         |
| Age           |   |       |  |             |
| Under 35      | 2 | 20%   |  | 80%         |
| 35-44         | 2 | 23%   |  | 77%         |
| 45-54         | 3 | 1%    |  | 69%         |
| 55-64         | 4 | 8%    |  | 52%         |
| 65 & over     | 6 | 6%    |  | 34%         |
| Next          |   |       |  |             |
| Operator      |   |       |  |             |
| Relative      |   | 51%   |  | 49%         |
| Involved Non- |   |       |  |             |
| Relative      |   | 31%   |  | 69%         |
| Outsider      |   | 23%   |  | 77%         |

Table 7: "If you expect this farm to continue as a commercial farm (or as part of a larger commercial farm), who will operate it?"

|              | One or<br>more<br>of your<br>children | Other<br>relative | Someone<br>unrelated<br>but<br>involved | Other<br>unrelated<br>person/<br>group | (Land no<br>longer<br>farmed) |
|--------------|---------------------------------------|-------------------|---|--|-------------------------------|
| All Farms    | 52%                                   | 8%                | 7%                                      | 18%                                    | (15%)                         |
| Herd<br>Size |                                       |                   |   |  |                               |
| Under 50     | 43%                                   | 19%               | 0%                                      | 13%                                    | (6%)                          |
| 50-99        | 63%                                   | 7%                | 6%                                      | 13%                                    | (14%)                         |
| 100-199      | <i>7</i> 9%                           | 8%                | 11%                                     | 19%                                    | (15%)                         |
| 200-499      | 83%                                   | 3%                | 4%                                      | 18%                                    | (11%)                         |
| 500 plus     | 93%                                   | 4%                | 1%                                      | 4%                                     | (9%)                          |
| Age          |                                       |                   |   |  |                               |
| Under 35     | 39%                                   | 11%               | 5%                                      | 18%                                    | (27%)                         |
| 35-44        | 60%                                   | 4%                | 8%                                      | 16%                                    | (13%)                         |
| 45-54        | 62%                                   | 7%                | 3%                                      | 18%                                    | (11%)                         |
| 55-64        | 68%                                   | 6%                | 7%                                      | 12%                                    | (6%)                          |
| 65 &<br>over | 72%                                   | 6%                | 6%                                      | 12%                                    | (3%)                          |

only half of those planning to pass on the business to a relative have sought outside advice.

#### Work Expectations

New York's current dairy farmers show little interest in leaving farming for other occupations. Most expect to continue farming until they retire, with some variation among age groups, except that the oldest and youngest have the least expectation of ever working non-farm jobs.

Those who plan to stop operating their dairy farms within the next ten years are about equally apt to stay in agriculture or go to non-farm employment. Very few of those who plan to continue operating their dairy farms for at least ten more years ever expect to work outside agriculture.

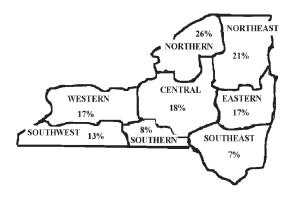
#### Demand for Farmland

DFTS respondents were asked whether they were approached either by farmers interested in using their land for agricultural purposes or by someone interested in buying their land for other purposes. Most farmers have not been approached by either party within the last three years (Figure 5).

About one in five of New York's dairy farm operators was approached to sell his or her entire farm for a non-farm use within the last three years (Figure 6).

Slightly larger percentages of dairy farmers were approached during the past three years to sell off sections of their farms for non-agricultural purposes.

Figure 5: In the past three years, have other farmers expressed interest in buying, renting or leasing all or part of your current farm?



Taken together, the data suggests that pressure to convert dairy farms to non-agricultural uses is greatest in the southeastern and eastern regions of the state.

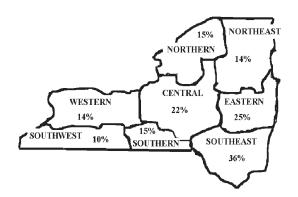
#### Conclusions

The results from this initial survey present an encouraging response from dairy farmers regarding their commitment to continue and expand dairy operations, which have been in their families for generations. Based on an analysis of responses from 592 participants, 48 percent of New York's dairy farm operations indicate that they plan to expand their herds in the near future, while 45 percent expect to maintain their current scale of operations. Only seven percent expect to decrease their herds or stop milking cows entirely over the next two years.

The study was conducted at the beginning of a period of declining prices (January 2002). It is unclear what dairy producer's responses would be in an extended period of low prices.

Views expressed by the authors do not reflect New York State Department of Agriculture and Markets' policies or positions.

Figure 6: . In the past three years, have you been approached about selling your entire farm for residential, commercial or recreational purposes?



#### Acknowledgments

This article would not be possible were it not for the help of the New York Agricultural Statistical Service who conducted the survey and the New York dairy farmers who took time out of their busy schedules to complete the questionnaire.

#### **Endnotes**

<sup>1</sup> This paper can be found in a slightly different format on the New York State Department of Agriculture and Markets' homepage, http://www.agmkt.state.ny.us/survey.html

- <sup>2</sup> U.S. Department of Agriculture, Agricultural Marketing
   Service, Northeast Marketing Area-Federal Order 1, Uniform
   Price and Producer Price Differential Report, monthly series,
   2001, 2002, [http://www.fmmone.com/Northeast\_Order\_Prices/New\_Prices\_main.htm#Uniform]
   <sup>3</sup> U.S. Department of Agriculture, National Agricultural
   Statistics Service (NASS), Agricultural Statistics Board, Milk
   Production, February 2002
- <sup>4</sup> U.S. Department of Agriculture, National Agricultural
   Statistics Service (NASS), 1997 Census of Agriculture, New
   York State and County Data, Volume 1, Geographic Area
   Series, Part 32

**Appendix 1. Survey Instrument** 



## STATE OF NEW YORK DEPARTMENT OF AGRICULTURE AND MARKETS

George E. Pataki Governor Nathan L. Rudgers Commissioner

### **2002 Dairy Farm Transition Survey**

State policy makers and industry leaders need to have a better idea of what the turnover in farm management will be over the next few years. This survey will help provide an objective view of this situation. The information you give will help decision makers plan for a viable long term dairy industry in New York. All individual responses will remain confidential and only be used in summaries for the entire state.

Nathan L. Rudgers Commissioner

| 1. | How many cows are you currently milking?  | 001          |
|----|---|--------------|
| 2. | How many cows will you be milking in two years?   | 002          |
| 3. | How much longer do you plan to operate your dairy farm? (Check one.)  |              |
|    | 1. 1 to 3 years.  | 003          |
|    | 2. 4 to 9 years.  |              |
|    | 3. 10 years or more.  |              |
| 4. | When you stop operating this dairy farm, what will happen with the farm? (Ch  | heck one.)   |
|    | 1. It will continue to be operated as a dairy farm by someone else.   | 004          |
|    | 2. It will be operated as another type of commercial farm.  |              |
|    | 3. It will no longer be operated as a commercial farm.  |              |
| 5. | If you expect this farm to continue as a commercial farm (or as part of a large farm), who will operate it? (Check One) | r commercial |
|    | 1. One or more of your children.  | 005          |
|    | 2. A relative who is not one of your children.  |              |
|    | 3. Someone unrelated but who is currently involved in this farm.  |              |
|    | 4. Some other unrelated individual or group.  |              |
|    | 5. This land will be no longer be farmed or be used to raise livestock.   |              |

(Over)

| 5a. Do you expect part or full ownership to be retained in your family?   |                  |
|---|------------------|
| <b>Yes</b> - 1 <b>No</b> - 3  | 006              |
| 5b Have you consulted a lawyer, accountant or other expert about arranging f . to take over your farm?            | or someone       |
| <b>Yes</b> - 1 No - 3   | 007              |
| 6. When you stop operating this dairy farm, what will you do?   |                  |
| 1. I will operate this farm but not as a dairy.   | 008              |
| 2. I will operate another farm.   |                  |
| 3. I will work as an employee on this or another farm.  |                  |
| 4. I will work at a non-farm job.   |                  |
| 5. I will stop work entirely.   |                  |
| 7. In the past three years, have other farmers expressed interest in buying, re all or part of your current farm? | nting or leasing |
| <b>Yes</b> - 1 No - 3   | 009              |
| 8. In the past three years, have you been approached about selling your entir the following purposes?             |                  |
| 1. I have not been asked to sell.   | 010              |
| 2. Residential  |                  |
| 3. Commercial   |                  |
| 4. Recreation, hunting, etc.  |                  |
| 9. In the past three years, have you been approached about selling part of yo of the following purposes?          | ur farm for any  |
| 1. I have not been asked to sell.   | 011              |
| 2. Residential  |                  |
| 3. Commercial   |                  |
| 4. Recreation, hunting, etc.  |                  |
| 10. Please complete the following descriptive information about you and your                                      | fa <u>rm.</u>    |
| What is your age?   | 012              |
| How many years have you been working (as an adult) on a dairy farm?   | 013              |
| How many years have you been operating this farm?   | 014              |
| How many generations has this farm been in your family?   | 015              |
| Comments:   |                  |
|   |                  |
|   |                  |
|   |                  |
| Signed:   |                  |

Thank you for helping us with this study. All persons who return this survey will receive a summary of the results.