

Summary Statistics:
Connecticut Dairy Farmer Survey
1999

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Project Overview

The Department of Agricultural and Resource Economics is spearheading an effort to study the dairy industry within the state of Connecticut as part of an USDA Fund for Rural America grant. The grant's principal investigators are Dr. Linda Lee, Dr. Marilyn Altobello, and Dr. Jeremy Foltz; all professors in the department. In addition Dr. Thomas Morris from the Plant Sciences Department and Dr Sheila Andrew from the Animal Sciences Department are collaborating on issues related to feed production and storage and rotational grazing.

The three primary objectives of our study are:

1. To assess the competitiveness of the Connecticut dairy industry: including farm profitability, new technological options, and rotational grazing.
2. To determine the extent and profitability of various alternative income sources (agritourism, aqua-culture, and specialty crop production) for dairy farms in Connecticut.
3. To analyze the status and long-term trends of agricultural land use, open space, and farmland preservation programs within Connecticut.

The information presented here comes from a survey conducted in the spring of 1999 by the principle investigators of all Connecticut dairy farmers.

Summary of the Data

A survey was sent to all 245 Connecticut dairy farmers. Of these 124 returned useable information on their dairy farms, representing a 51% response rate.¹ Table 1 presents the general characteristics of Connecticut Dairy farmers. Despite recent growth in cow numbers (17% increase in cows per farm since 1990), dairy farms remain a relatively small scale business, with more than 60% having under 100 milk cows. Connecticut dairy farmers are well educated, productive farmers. The rolling herd average of 19,800 lbs per cow is above the national averages.

A great deal of the productivity of the farms comes from farms using many of the latest dairy herd management technologies available to them. While most productivity enhancing technologies have been adopted by 2/3 to 3/4 of the farmers, only 30% use bovine growth hormone on their herd. Over one third of Connecticut dairy farmers graze their animals for at least part of the herd's forage rations with about 21% being "rotational grazers." Three quarters of the farms relied on pastures for their heifers, dry cows, and/or calves.

The survey was conducted at the end of a year with record high milk prices, which implies that the reported profit numbers are also higher than normal. On average farms had \$52,500 in profits, although 7% lost money and 23% earned less than \$10,000. Nearly 23% rely on outside income sources to continue the operation of their farm. On the other hand high land prices in the state have left dairy farms with an average of \$1.4 million in assets and a relatively low debt to asset ratio of 13%. This high level of assets has meant that on average farmers are only earning a 5% return on their assets, which is low considering the high risks involved in dairy production. Alternative farm related activities were insignificant for two-thirds of the farmers, although they have received a lot of interest lately. A number of farmers (42%) plan on expanding what they currently do.

The vast majority of Connecticut dairy farmers, 80%, plan to continue farming for the next 5 years. Only 9% expect to sell their land to a developer, although nearly 16% have talked to a developer in the last 5 years about selling some land. Of the land operated by these dairy farms, 22% is already enrolled in the state farmland preservation program, while 90% of the farmers take advantage of property tax assistance under Public Law 490. Despite ever changing milk prices, the dairy farmers currently operating in Connecticut appear to be technologically advanced, dedicated to continuing their farming operations, and unlikely to sell to the next developer who offers them some quick cash.

¹ Statistical procedures to check the response bias found that respondents did not have significantly different farm sizes (number of cows) from the general population of dairy farmers, but that they were significantly more productive (daily production per cow) than non-respondents. Although this difference is statistically significant, the difference between respondents and non-respondents does not appear to be economically meaningful. After controlling for other factors, respondent farms produced 8% more milk per cow than non-respondents.

Table 1

| General Characteristics | Survey | State |
|---|---------------|--------------|
| Number of respondents (total number of dairy farms) | 124.0 | 245.0 |
| Average number of cows per farm | 133.7 | 113.1 |
| Percent of farms by size class | | |
| 0 to 49 cows | 23.6 | 29.8 |
| 50 to 99 cows | 20.3 | 29.8 |
| 100 to 149 cows | 26.0 | 18.0 |
| 150 to 199 cows | 13.8 | 9.0 |
| 200 to 249 cows | 4.1 | 4.1 |
| More than 250 cows | 12.2 | 9.4 |
| Percent increase in number of cows per farm from 1990 to 1999 | 17 | |
| Total farm receipts (Percent in category) | | |
| Under \$50,000 | 6.8 | |
| \$50,000 to \$99,999 | 14.5 | |
| \$100,000 to \$199,000 | 17.1 | |
| \$200,000 to \$499,999 | 35.0 | |
| \$500,000 to \$999,999 | 21.4 | |
| \$1,000,000 or more | 5.1 | |
| Average Gross milk sales per farm (\$) | \$358,600 | |
| Total milk production (average by farm, 1,000lbs.) | 2,429.1 | |
| Rolling herd average per cow (lbs./yr.) | 19,800 | |
| Total operated acres (average per farm) | 445.1 | |
| Total cropped acres (average per farm) | 262.1 | |
| Number of years the family has been farming (avg) | 84.8 | |
| Principal owner | | |
| Average age | 53.3 | |
| Years of formal education | 12.9 | |
| Number of regular workers including family members | | |
| Full-time | 3.2 | |
| Part-time | 2.0 | |
| Percent that find it hard or very hard to hire an adequate work force | 86.8 | |

Table 2

Technologies used on the farm

Uses of various technologies (percent of farms):

| | |
|---|------|
| Predip all teats before milking | 61.3 |
| Postdip all teats after milking | 96.7 |
| Regularly scheduled veterinary services | 80.7 |
| Balance feed rations at least 4 times a year | 70.9 |
| Total mixed ration machinery | 62.7 |
| Artificial insemination on at least 75% of the herd | 93.4 |
| Freestall housing for the milking herd | 73.1 |
| Milk cows three times a day | 9.6 |
| Seasonal milking program | 6.2 |
| Own and use a computer for personal or family use | 60.2 |
| Own and use a computer for farm record-keeping | 48.3 |
| Access information for the farm over the internet | 33.9 |
| Use a dairy record program | 65.5 |

BGH Usage

| | |
|---|------|
| Percent who have tried rBST (BGH) | 39.5 |
| Percent farms currently using rBST (BGH) | 29.5 |
| Percent of milking cows treated with rBST | 32.7 |

Grazing

| | |
|---|------|
| Percent of farms relying on pastures for at least part of their forage ration | 39.5 |
| Percent of farms on which pastures are the primary source of total feed | 18.9 |

Percent moving grazing cows to fresh pastures:

| | |
|-------------------|-----|
| Twice a day | 4.0 |
| Once a day | 5.6 |
| Every 2-3 days | 5.6 |
| Every 4-6 days | 3.2 |
| About once a week | 2.4 |

Percent relying on pasture for the following animals:

| | |
|----------|------|
| Heifers | 74.3 |
| Dry cows | 73.9 |
| Calves | 29.8 |

Table 3

| Financial information | |
|---|-------------|
| Proportion of farm receipts from sale of milk | |
| Almost all (90% or more) | 76.6 |
| Most (50% to 89%) | 17.7 |
| Less than half (10% to 49%) | 0.8 |
| Not very much (less than 10%) | 0.8 |
| Off-farm income is vital to continued operation of the farm | 22.8 |
| The farm has any alternative (non-dairy related) farm-related activities generating more than \$500 in revenues per year. | 33.1 |
| Value of the farm business assets (average per farm) | \$1,454,500 |
| Value of farm profits (average per farm) | \$52,500 |
| Average profits per cow (\$) | \$373 |
| Percent of farms with any debts | 75.8 |
| Debt to asset ratio (%) | 13.5 |
| Profits to assets ratio (%) | 5.3 |
