

# Small & Mid-Size Dairy Viability Project

## Project Overview

This three-year study of **Factors influencing viability of small and mid-size dairy farms in New York State** is a collaborative effort involving Cornell University researchers in Development Sociology, Animal Science, Applied Economics & Management, Small Farms Program, and NY FarmNet-FarmLink, as well as Cornell Cooperative Extension educators throughout the state.

### BACKGROUND

Small and mid-sized dairy farms and the people who manage them are an important part of New York's dairy sector. Nearly 75% of New York's dairy farms milk fewer than 100 cows, and these herds include 263,000 cows or about 40% of the state's total dairy herd. They supply about 35% of the milk sold by New York's dairy farms (Smith 2003). Small and mid-size farms are vital to the many communities across the state that depend on farming, dairy manufacturing and related businesses for at least part of their economic well-being, their social infrastructures, and their environmental amenities.

### The debate about dairy farm viability

The prospects for small and mid-size dairy farms have long been at issue. Many people regard small and mid-size farms as having poor long-term futures in a context of increasing concentration and scale in dairy farming, processing, and retailing (see, for example, LaDue et al. 2003). In such a view, small and mid-size farms cannot compete with large farms because they typically cannot generate the economies of scale needed (Short 2004). Larger farms may get volume discounts on purchased inputs. They may also use technologies that enable greater labor efficiency (Knoblauch et al. 2002, Table 59; Cochrane 1993). Some regulations for control of environmental pollution at the watershed level require even small farms to install expensive mitigation practices that could put them out of business (e.g., LaDue et al. 2004).

Small and mid-size farms are also viewed by some as being problematic for cooperatives, other buyers, and processors as these businesses seek increased efficiency in their business transactions. Recent changes in the structure of transportation charges farmers pay to the co-ops that pick up their milk may be one reflection of this. Lyson and Gillespie (1995) have shown a correlation between size of processing firms and size of dairy farms, suggesting that maintaining smaller dairy farms may be more a matter of maintaining their markets than of increasing their economic efficiency. Moreover, some are concerned about the availability of credit on good terms to farmers with smaller enterprises. The changing structure of ownership of rural banks may lead to declines in agricultural lending in general (Green 1984).

### Requiem or renaissance for smaller dairies?

The context described above led Douglas Harper, in 2000, to title an article based on his visual sociological study of a dairy farming area in the North Country of New York: "Requiem for the Small Dairy: Agricultural Change in Northern New York." But at the same time that some are calling for the last rites for smaller dairy farms, others point to the continuing success of well-managed smaller farms and those with innovative marketing practices. It has been shown that

many smaller dairies do provide an adequate livelihood and high quality of life for farm families (Cuykendall, Ladue, and Smith 2002). Some of these farmers use cost reduction practices like management intensive rotational grazing (e.g., Jackson-Smith et al. 1996), and some have cost of production structures that are on par with larger enterprises (Cuykendall et al. 2002).

Some farmers have found appropriate diversification strategies that enable profitable use of family labor and on-farm resources (e.g., Welsh 1996; Hoffman and McBeath 1987). Others have turned to niche marketing of products to compensate for missing economies of scale that are possessed by competitors (e.g., Cuykendall et al. 2002). For still others help stabilize the farm business through income and benefits from off-farm work by spouse or operator that provide resources for family living, farm enterprise investment, and insurance against low milk prices (Mishra et al. 2002; Cuykendall et al. 2002).

### **Understanding and fostering viability**

In summary, it appears that there are a host of opportunities for smaller dairy operators to remain viable by bringing together strategies that make effective use of farm household labor and resources, personal proclivities, cost control measures, diversification options, and marketing innovations. This project is aimed at better understanding the characteristics of small and mid-sized dairy businesses, and the internal and external factors that contribute to their viability. The study will also explore opportunities for synergy and cooperation among dairies of similar size and between dairies of different sizes in the same community.

### **PROJECT OBJECTIVES**

1. Identify the farming systems and management strategies being used by successful small (less than or equal to 125 cows) and mid-size (126-600 cows) dairies in two types of communities of New York State: communities where small and mid-sized dairy farms predominate, and communities with a concentration of very large dairies.
2. Identify opportunities for synergy and cooperation among dairies of similar size and between dairies of different sizes in the same community; identify conflicts in interest and challenges to coexistence between different size dairies.
3. Explore the influence on dairy farm viability of factors such as: operator attitudes, experience, training, innovativeness; adoption of particular technologies or management systems; support of agencies and organizations e.g., technical assistance, loans, training; participation in farmer networks; fates of neighboring dairy farms (expansions, failures, stability); competition for land resources; and other factors external to the farm businesses.
4. Recommend actions that farmers, educators, supporting agencies and communities can take to increase the competitiveness and sustainability of small and mid-size dairy farms.

### **PROCEDURES**

**Study areas:** Eastern NY Area includes: Chenango, Delaware, Otsego, Schoharie, Montgomery, Schenectady, and parts of Sullivan, Ulster, Green, Albany and Madison. Western NY Area includes: Erie, Wyoming, Livingston, Ontario, Genesee, Seneca, Cayuga, Onandaga. Northern NY Area includes Jefferson, Lewis, St. Lawrence, Oneida, Herkimer, Essex, Clinton, Franklin, part of Madison. Study areas will be described using secondary data.

**Farmer Survey:** Face-to-face interviews with the principal operators of 20 small and 20 mid-size dairies in each of the three study areas will be conducted by experienced interviewers. All of the survey farms will be current participants in the Dairy Farm Business Summary (DFBS). The DFBS already collects the detailed financial information that is needed to estimate the financial viability of dairy farms. The interviews will collect data on a variety of technical and social variables that are not currently covered in the DFBS.

**Farmer Focus Groups:** Focus groups will be conducted with small and mid-sized farm operators who do NOT participate in the Dairy Farm Business Summary to gather additional information and insight.

**Service Provider Focus Groups:** Focus groups will be conducted with staff of CCE, FSA, NRCS, lenders, other service providers and planning boards located in the study areas.

**DFBS Analysis:** Existing data from the Dairy Farm Business Summary will be analyzed to identify the farming systems and management strategies being used by small and mid-size dairy operators of high and low economic viability.

**Case Profiles:** Four of the more viable small dairy farms and four of the more viable mid-size dairy farms (balanced for farm size and location) will be selected for case studies to further explore the opportunities for smaller dairies and the issues facing them. From these studies we will develop case profiles that illuminate the strategies and practices of these farms and demonstrate the diverse management systems and technologies being used successfully.

#### **Outreach:**

The project will be guided by a farmer advisory team consisting of small and mid-size dairy operators from each of the three study areas. Advisors will review and comment on preliminary results and will help to plan outreach materials and provide feedback on drafts to ensure that publications are appropriately targeted and effective. They will share in presenting results of the research in local workshops and farmer discussion groups. Findings will be used in farmer discussion groups, workshops, conferences, and stories in the news media to help farmers think about ways they can increase the viability of their farms. The results will also be used to make recommendations to researchers, educators, service providers, and agencies.

#### **Funding:**

This project is supported by Federal Formula (Hatch) Funding from the USDA Cooperative State Research, Education, and Extension Service (CSREES), administered by the Cornell University Agricultural Experiment Station.

#### **PROJECT LEADERSHIP**

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# Project Timetable

Rev 02-07-06

	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
<b>Year One— Jan 2005 - Sep 2005</b>												
Establish advisory committee												
Confirm & describe study areas												
Develop questionnaire												
Cut questionnaire by 1/3												
Develop focus group protocols												
<b>Year Two— Oct 2005 – Sep 2006</b>												
Instruments, procedures to Human Subjects												
Consult with advisory committee												
Complete cutting questionnaire												
Finalize survey procedure												
Revise survey sample												
Plan & conduct farmer focus groups												
Plan & conduct service provider focus groups												
Analyze focus group information												
Hire and train survey interviewers												
Conduct survey of farmers												
Enter survey data												
Analyze survey data												
Choose case study cases												
Conduct case studies (begin)												
<b>Year Three— Oct 2006 – Sep 2007</b>												
Consult with advisory committee												
Conduct case studies (complete)												
Analyze survey data												
Prepare findings & recommendations												
Prepare applied & scientific papers												
Applied presentations & outreach												

- Inactive
- Low intensity activity
- High intensity activity