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# Grass-Fed Dairy Farm Production Practices and Demographics in the US

## Results from a survey of grass-fed dairy producers in the US

### Background

Over the last decade, organic grass-fed dairy production has grown rapidly in the US. Since 2016, we estimate that the number of grass-fed organic dairy farmers in the US has expanded by over 400%. The concerns, practices, perceptions, and technical assistance requirements of these farmers need to be better understood so that this growing production system can be sustainable into the future. To address this need, a team of collaborators from UVM, UNH, USDA ARS, combined with farmers and service providers have come together to address the needs of the grass-fed dairy industry.

As a first step to understand the characteristics of the American grass-fed dairy, the project team developed and distributed a survey via mail to 351 grass-fed farms throughout the US. The survey included questions about farm characteristics, farmer demographics, production practices, farmer's perceptions and how they rate their current levels of management knowledge. One hundred sixty-four farmers returned the survey for a response rate of 46.7%. This article summarizes some of the results of this survey.

### Key Findings

1. On average, grass-fed dairy farmers are 47.6 years old and been certified grass-fed for over 5 years.
2. Farms manage an average of 49 cows and 219 acres of pasture and crop land, however, over 63% need to purchase additional forages.
3. Farmers who reported higher levels of knowledge on forage quality and reproductive performance also reported higher milk production.
4. Over 60% of farmers identify as part of the plain community- support for grass-fed dairy farmers should include printed materials and regional events.

For the purposes of this publication, grass-fed dairy is defined as dairy production in which the ration does not contain any grain or grain byproducts. Nutrient needs on these farms are met with grazed and stored forages.

### Farmer Demographics

The geographic range of farmers responding included 16 states, with most farms located in NY, OH, WI, PA, and VT (Figure 1). Farms in other states (those under 5% each) included IA, MD, VA, OR, MN, NH, MA, FL, KS, NJ, and IN. The concentration of farms regionally in the US likely relates to the location of grass-fed milk buyers, processing and markets.

#### Percent of Respondents from Each State

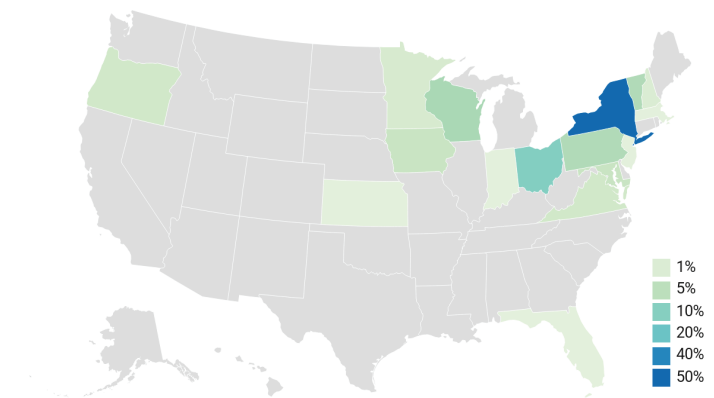


Figure 1. Representation of states from farmer respondents.

On average, grass-fed dairy farmers are 47.6 years old, which is younger than the national average of 57.5 years. In addition, 61.0% self-identify as part of the plain community. Subsequently, 43.8% of respondents indicated that they never utilize the internet for business or gathering information. Most of the respondents (96.3%) report that they have been certified organic for an average of 10.3 years, and 84.2% report they have been certified grass-fed for an average of 5.1 years.

Higher milk production was reported by farmers that also indicated a high level of knowledge in the following areas:

- Growing higher energy forages
- Strategies for improving forage quality
- Understanding forage quality test results
- Understanding and tracking reproductive performance

## Herd, Land, and Management Characteristics

Self-reported annual milk production per cow was 9,305 lbs. with average butterfat and protein content of 4.39% and 3.33% respectively. As expected, there was a statistically significant correlation between breed and milk production with Holsteins making the most milk, followed by crossbreds and Jerseys. Seasonal milking (the whole herd dry at some point each year) was reported on 15.2% of farms, and 10.2% milk the herd just once per day. As might be expected, seasonal farms reported less milk production compared to the other grass-fed farms. On average, farms are feeding calves milk for 4.9 months and 57.7% of farms report they only raise enough calves to meet their culling and replacement needs. The average reported cull rate was 16.2%.

Grass-fed farmers were managing an average 219 acres of owned and leased pasture and cropland. However, 63.9% report that they still need to purchase an average of 38.3% of their total forage needs each year. Most farms grow only perennial crops (hay and pasture) with 32.5% produce some annual forages.

### Percent of Intake from Pasture

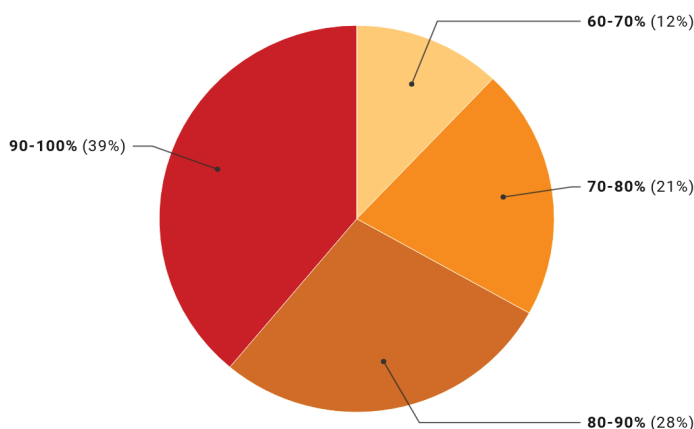


Figure 2. Percent of respondents who indicated how much intake during the grazing season comes from pasture.

## Respondent Herd Profile

49 Average Herd Size

1-250 Range of Herd Size

54% Primarily Crossbreds

22% Primarily Holstein

17% Primarily Jersey

Most farmers report using a grazing system where cows are moved to a new paddock two or more times per day and graze the herd for an average of 197 days a year. During the grazing season, 38.9% of farms report that their pastures provide over 90% of their total forage needs (Figure 2). Fertilizer, manure or other off farm soil amendments were reported to be “typically purchased” on 76.5% of farms. Soil tests are utilized on 80.8% of responding farms, however, forage is tested on only 43.1% of farms, and manure tested on 17.4% of farms.

## Next Steps

This survey was a first step by the project team to develop a deeper understanding of the characteristics, opportunities and needs of the grass-fed organic dairy. Our next phase of work is to launch a nationwide effort to create financial and production benchmarks for this unique and quickly expanding production system. By creating benchmarks specific to grass-fed dairies, farmers will be able to see how their production and management practices compare to other similar farms across the country, allowing them to identify opportunities for improvement. These benchmarks will also be critical for the expansion of the market and the adoption of grass-fed by more farms in the U.S. If you are interested in participating in the grass-fed organic dairy benchmarking program, please contact Heather Darby at [heather.darby@uvm.edu](mailto:heather.darby@uvm.edu) or 802-524-6501.

## Acknowledgements

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