

# Local, Fresh and Raw

## Unpasteurized Milk in Massachusetts

June 2009

The Massachusetts Chapter of the Northeast Organic Farming Association (NOFA/Mass) works with raw milk farmers as they navigate rules and regulations, find markets for their product, and strive to produce a healthy food for their customers. In early 2009, in an effort to get a clear picture of the industry in Massachusetts, NOFA/Mass' Raw Milk Network conducted a survey of all of the raw milk farmers in this state approved by state authorities to sell raw milk.

Massachusetts raw milk farmers play an integral role in the state's agricultural landscape, contributing to the economy, using sustainable farming methods that contribute to environmental preservation, educating their customers about the value of fresh, local food, and producing a healthy product for all to enjoy.

Massachusetts leads the nation with direct farm-to-consumer sales. As consumers' interest in buying local foods has increased in recent years, people have built relationships with nearby farmers and are not only enjoying these products but also contributing to the sustainability of the farms in ways that traditional food systems do not.

With food safety on everyone's mind as well, many are coming to understand that small scale producers and distributors of food have an advantage over large scale processors that mix huge quantities of products from different sources, thus risking massive contamination even if just a single ingredient was improperly handled or contaminated.

The concept of "raw milk" itself is relatively new in this era of food convenience. The advent of pasteurization coincided with the growth of urban dairies and confinement operations, where animal illness, contamination and mishandling of products often caused problems. On farms where cows are allowed to roam on pasture, milked using the proper techniques, and where the milk is handled and stored properly, the resulting product is indeed safe and healthy, and customers can discover the incredible taste of milk that was, quite literally, grass, often just 24 hours earlier.

Massachusetts is one of 28 states with laws and regulations allowing the sale of raw milk. Massachusetts regulations require that the milk must be sold directly to consumers and may only be sold on the farm where it was produced. The facility and the milk must undergo regular

inspections and testing, more rigorous than that of conventional dairy farms and milk intended for pasteurization. Violations of rules regarding cleanliness, proper storage and handling of the milk, and other safety issues result in revocation of the farm's right to sell raw milk until the rules and standards are again met.

### **Massachusetts Raw Milk Farmers**

At the time of this survey (February 2009), Massachusetts had 25 active raw milk dairies certified by the state to sell raw milk directly to consumers on the farm, 23 of them selling cow's milk and two selling goat's milk. These farmers manage a total of nearly 1,000 cows, and sold more than 80,000 gallons of milk to consumers in 2008. From the smallest dairy, milking only three cows, to the largest, with 200 head to manage, each of them relies on raw milk to sustain their farming business.

### **Economics**

When asked why they chose to sell raw milk, survey respondents overwhelmingly cited market demand and the premium consumers are willing to pay for the product. Prices for bottled raw cow's milk in Massachusetts range from \$3.00 to \$9.00 per gallon, with an average of six dollars per gallon. Raw goat's milk sells for significantly more than cow's milk – up to \$12.50 per gallon. The price varies depending upon a range of factors, including location, farm size, and management practices.

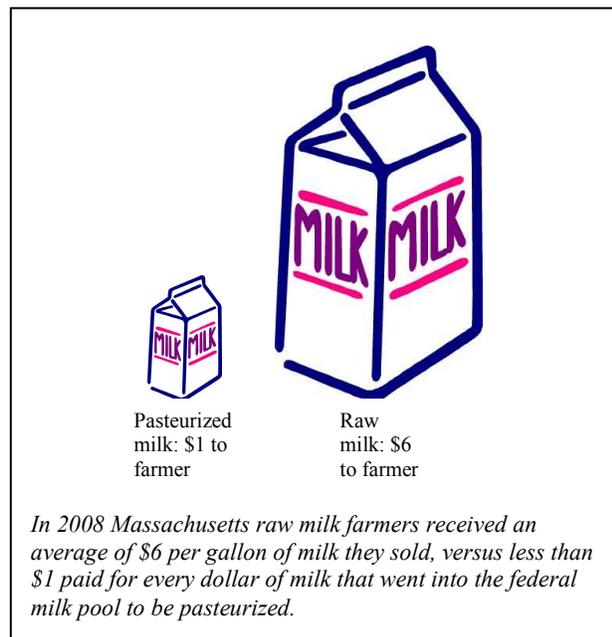
Total sales of raw milk direct to consumers in 2008 in Massachusetts amounted to more than \$600,000, with some farmers reporting that their sales of raw milk comprised approximately one percent of their farm income while others reported raw milk sales were 100% of their farm income. Twelve of the 25 dairy farmers reported that raw milk sales were vital to their farm's survival, reporting that more than 20% of their farm income came from the sale of raw milk directly to consumers.

It is worth noting that the money earned from the sale of raw milk, like all local products, has a lasting effect in the communities where it is sold. These farmers employ their neighbors, purchase products from their local stores, and contribute to the tax base of their towns. Some farmers also report that consumers who purchase raw milk from farmers build on that habit by purchasing other products from nearby farms, thus further stimulating the local farm economy.

Milk trucked away from farms by processors to other towns and states results in a complex web of payments and credits that are spread more distantly. While some of the money spent on milk purchased in stores does represent an eventual payment to a farmer, the amount taken first by large processors, retail overhead, trucking companies, and other intermediaries, accounts for a significantly larger portion of the sale price.

One key issue cited by a number of dairy farmers surveyed was the fact that their sales of raw milk were crucial to offsetting the expenses of their organic management practices – which tend to be more costly than conventional practices. These farmers have chosen organic management because of consumer demand, because they are committed to practices that benefit the environment and consumers’ health, and because their product can command a higher price. In most areas of the U.S., organic dairy producers are paid a premium for their milk by organic processors such as Organic Valley, Horizon and Hood’s organic line. Organic processors do not adequately service Massachusetts, however, leaving organic producers who ship their milk off-farm receiving conventional prices for their premium product. Selling some or all of their raw milk directly to the consumer allows them to make up some of the difference between cost of production and the price paid by processors.

Conventional milk prices in the United States are controlled by the Federal government, and fluctuate widely. Between 2007 and 2009, for example, prices ranged from as high as nearly \$22 per hundredweight (\$1.76 per gallon) to less than \$10 per hundredweight (less than 80 cents per gallon). At the time of this survey, prices were at the lowest end of this range, far less than the average cost to produce a gallon of milk. As a result, dairy farmers are struggling to remain in business, having to pay more to produce their product than the Federal government allows processors to pay for it. Many farms are closing down altogether – the number of dairy farms in Massachusetts dropped from 829 in 1980 to 189 in 2007, according to the Massachusetts Association of Dairy Farmers. Particularly vulnerable to



these variable prices are the smaller farms, while large dairies with thousands of cows fed conventional grain capture more and more of the share of the nation's milk industry, and are often eligible for federal subsidies not made available to smaller farms.

In contrast, the number of raw milk farms in Massachusetts has more than doubled in just the last three years. Raw milk farmers sell their product at a price that reflects what it costs them to produce it. By selling directly to the consumer a dairy farm can be more financially sustainable—dairy farmers who sell raw milk can control the price for their product and can make long-term business decisions accordingly. “Selling raw milk is the only way a farmer with limited resources has any chance of running a profitable dairy,” wrote one dairy farmer.

Raw milk farmers in Massachusetts are also at a competitive disadvantage with their counterparts in neighboring states. In Connecticut and Maine, for example, raw milk may be sold in retail stores. New Hampshire raw milk farmers are permitted to deliver milk to their customers' homes. More than half of the respondents indicated that they would like to sell more raw milk than they are currently selling, citing the inability to sell off-farm as the main factor limiting sales. That sentiment was not universal, however, with more than one respondent stressing the value of farmer-consumer relationships in educating consumers about the product.

### **Environment and Health**

Raw milk dairy farmers steward more than 3,500 acres of Massachusetts farmland, keeping that land open and in active agricultural use. At a time when Massachusetts is losing farmland at a rapid pace, these farmers play a critical role in maintaining one of the state's treasured resources, and in protecting the environment from accelerated development and pollution. Raw milk farmers range in tenure, from some who farm land that has been in their family for generations, to new farmers who are restoring farmland that had gone fallow with disuse.

Many of the dairy farmers that sell raw milk in Massachusetts use organic or sustainable management methods, including minimal chemical inputs into the environment, and grazing their animals, thereby reducing dependence on grains and other feeds that require a great deal of energy inputs for processing and shipping. At the same time, the cows fertilize the soil, reducing the need for artificial inputs to keep the soil and pasture grasses healthy. When cows graze on

pasture, less energy is needed to mow, bale and move hay and other grains for feed, reducing fossil fuel use and cutting the carbon impact of producing a valuable food.

In addition, since the supply chain for raw milk is so direct – from the farmer to the consumer in a single step – the carbon footprint for each bottle of milk sold is less than that of conventional milk, which is carried by tanker truck from farm to processing plant, then to a distribution warehouse, and finally to retail locations. When groups of households join together to form buying clubs and share responsibility for picking up each others' milk from the farm, the environmental impact of raw milk distribution is further lessened.

Raw milk farmers not only cite their concern for the environment as a whole, but also their concern for the health of their animals as a reason for grazing. Cows raised on pasture tend to be healthier than their confinement-raised counterparts, and since raw milk farmers avoid the use of antibiotics and hormones on their animals they rely on natural methods of maintaining their animals' health.

In turn, the cows produce a product that the farmers are proud to stand behind and promote. Many raw milk farmers see themselves as educators, teaching their customers about the benefits of the product. Unpasteurized milk contains beneficial nutrients, enzymes and amino acids that are destroyed in pasteurization, according to studies cited by raw milk farmers.

### **Regulations and Inspections**

Massachusetts raw milk farmers are committed to selling only safe, healthy milk to their customers. They recognize that there are hazards inherent in the production of any food product, and they participate in a rigorous state-mandated testing regimen. Raw milk to be sold to consumers is tested for bacteria, coliform and somatic cells. Allowable levels for these contaminants are far lower than those allowed for milk slated for pasteurization. In addition, raw milk sold directly to consumers in Massachusetts, is dated for sale within five days after bottling, and is bottled no more than two days after being milked. Some of the farmers go beyond the state-required tests and pay for more frequent tests themselves to ensure that their milk is of the highest quality. In response to the survey, some farmers even expressed a willingness to submit to additional testing, as a way of demonstrating their commitment to producing high-quality, safe milk.

The testing and monitoring by the Massachusetts Department of Agricultural Resources is clearly working – no illnesses due to raw milk have been reported in Massachusetts in more than ten years.

While many of the farmers surveyed indicated that they value the farmer-consumer relationships that are built through on-farm sales, far more responded that they would like to see Massachusetts regulations changed to allow for retail sales in off-farm stores and at farmers markets. “Cigarettes are more accessible than our milk,” noted one respondent. Many farmers also indicated that they would like to be able to sell products made with raw milk on farm – in particular minimally processed products such as cream and butter – in the same way that they are allowed to sell their milk. “They’ve figured out how to regulate fish so that it can be sold and eaten raw from stores,” said one farmer. “Why can’t they do the same with milk?”

### **Conclusion**

As interest in raw milk has increased, farmers in Massachusetts have stepped up to provide the product to consumers. In doing so, they have built an industry that is helping to sustain dairy farms at a time when many are failing. At the same time, they are contributing to the environmental health of the state. As both demand and supply continue to grow, open discussion needs to continue between consumers, regulators and farmers about how best to continue to provide raw milk safely and efficiently.

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For more information on raw milk in Massachusetts, please see the following web pages:

- A list and map of all raw milk farms in Massachusetts:  
<http://www.nofamass.org/programs/organicdairy/consumers.php>
  - Information for raw milk producers:  
<http://www.nofamass.org/programs/organicdairy/producers.php>
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NOFA/Mass is a community including farmers, gardeners, landscapers and consumers working to educate members and the general public about the benefits of local organic systems based on

complete cycles, natural materials, and minimal waste for the health of individual beings, communities and the living planet. For more information, please see [www.nofamass.org](http://www.nofamass.org).