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## Vermont Legislative Research Shop

### Raw Milk

The sale of raw milk is an increasingly contentious issue in Vermont and around the country. While the Food and Drug Administration (FDA), Center for Disease Control (CDC) and American Medical Association (AMA) have warned against the dangers of consuming “raw,” or unpasteurized dairy products, farmers, consumers and advocacy groups have argued it is low risk and provides health benefits. Two questions are relevant to the legalization/de-regulation of raw milk sales: What health risks are associated with the consumption of unpasteurized milk? And, Do the health risks warrant restriction on its sale to the public? While the latter is a question to be answered by legislators themselves, the former is the focus of this paper. This report examines the status of Vermont’s current statutes concerning the sale unpasteurized milk, the general national trends regarding raw milk regulation, and health issues related to raw milk consumption.

### Current Policies

#### Vermont

Vermont is one of 28 states that currently allow the sale of raw milk for human consumption.<sup>1</sup> State laws require that the milk be sold directly from the farm. Farmers can neither sell to stores nor advertise the product. A bill recently passed the Vermont Senate and House to allow the sale of up to 50 quarts per day of raw milk. The previous limit had been 25 quarts per day. Following the introduction of the bill, the Vermont Agency of Agriculture has agreed to lift its ban on the advertising of unpasteurized milk.

The recent push for the deregulation of raw milk sales can be explained in part by the increasing plight of Vermont dairy farmers. While local farmers often sell their pasteurized milk to large distributors for a low price, a farmer’s advocacy spokesperson explains that “Dairy farmers get a minimum of \$5 per gallon for raw milk, triple the price they get in the commodity market.”<sup>2</sup> As the sale of raw milk is necessarily restricted to farms, consumers are forced to “buy local,” and the profits are enjoyed by the farmers themselves, not large corporations.

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<sup>1</sup> David E. Gumpert, “Got Raw Milk?” *The Boston Globe*, retrieved April 28, 2008 from [http://www.boston.com/bostonglobe/magazine/articles/2008/03/23/got\\_raw\\_milk/](http://www.boston.com/bostonglobe/magazine/articles/2008/03/23/got_raw_milk/).

<sup>2</sup> Peter Hirshfeld, “Senate OK’s Raw Milk Bill,” *The Barre Montpelier Times Argus*, retrieved April 23, 2008 from <http://www.timesargus.com/apps/pbcs.dll/article?AID=/20080410/NEWS02/804100331/1003/NEWS02>.

## Other States

The sale of raw milk is illegal in 18 states.<sup>3</sup> Georgia, North Carolina, Florida and North Dakota allow the sale of raw milk as pet food only. Seven states allow retail sales of raw milk, and about 28 states allow on-farm sales.<sup>4</sup> Wisconsin, Michigan, Tennessee, Virginia, Colorado, Ohio and Indiana allow “cow-share” programs, in which several individuals own a “portion” of a cow. All owners have access to the cow’s milk, making it the only (legal) way to obtain raw milk in these states.<sup>5</sup> While many states such as Vermont, Utah and South Carolina are moving towards a more permissive regulation of raw milk sales, other states are moving in the opposite direction. North Carolina’s Board of Agriculture recently passed measures requiring that all unpasteurized milk be dyed a gray color.<sup>6</sup> The purpose of the dye is to discourage consumption by humans of the raw milk, which is sold as pet food only in the state.

## Health Issues

The FDA, CDC and AMA have all publicly denounced the consumption of raw milk as a potential health hazard. Pasteurization, the process by which liquids are rapidly heated and cooled, has been widely used to treat milk since the 1920s. Pasteurization destroys harmful pathogens such as Listeria, Salmonella, and E. coli. These are some of the most common causes of food-borne illness in humans. Although pasteurization also kills beneficial bacteria and enzymes, the FDA claims that there is a negligible nutritional difference between pasteurized and raw milk. Claims that pasteurization depletes milk of its valuable thiamine, folate, B-12, and riboflavin are met with the response that “pasteurization results in losses of anywhere from zero to 10 percent for each of these, which most would consider only a marginal reduction.”<sup>7</sup> The FDA also cites CDC data indicating that over 300 people became ill from eating raw dairy in 2001 as evidence for its harmful effects. The Center for Disease Control states that from 1998-2005 there were 1,007 illnesses and two deaths from raw milk or cheese, out of 76 million cases of food-borne illness that occur a year.<sup>8</sup> The American Medical Association cautions against consumption, especially for pregnant and nursing mothers.<sup>9</sup>

In California, a law that took effect on January 1, 2008 requires the Coliform bacteria count to be below 10 per milliliter, the same standard for pasteurized milk.<sup>10</sup> Wisconsin and Pennsylvania

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<sup>3</sup> David E. Gumpert, “Got Raw Milk?”

<sup>4</sup> RealMilk.com, “A Campaign for Real Milk,” retrieved April 28, 2008, from <http://www.realmilk.com/ppt/CampaignForRealMilk-13APR2008.PPT>.

<sup>5</sup> RealMilk.com, “What’s happening with Real Milk?” retrieved April 28, 2008 from <http://www.realmilk.com/happening.html#vt>.

<sup>6</sup> Greensboro News-Record, “Dyed raw milk? State likes charcoal,” retrieved April 28, 2008 from <http://www.news-record.com/apps/pbcs.dll/article?AID=/20070906/NRSTAFF/70906002>

<sup>7</sup> Bren, Linda (2004). “Got Milk? Make Sure It's Pasteurized”. *FDA Consumer Magazine*, Retrieved April 28, 2008, from [http://www.fda.gov/fdac/features/2004/504\\_milk.html](http://www.fda.gov/fdac/features/2004/504_milk.html).

<sup>8</sup> The Boston Globe, “Got Raw Milk?” Gumpert, David E. (2008) retrieved April 28, 2008, from [http://www.boston.com/bostonglobe/magazine/articles/2008/03/23/got\\_raw\\_milk/?page=2](http://www.boston.com/bostonglobe/magazine/articles/2008/03/23/got_raw_milk/?page=2)

<sup>9</sup> Center for Disease Control and Prevention, “Salmonella Typhimurium Infection Associated With Raw Milk and Cheese Consumption- Pennsylvania, 2007” retrieved April 28, 2008 from <http://jama.ama-assn.org/cgi/reprint/299/4/402.pdf>.

<sup>10</sup> California Department of Food and Agriculture, “California Milk Standards” retrieved April 28, 2008 from [http://www.cdffa.ca.gov/ahfss/Milk\\_and\\_Dairy\\_Food\\_Safety/Milk\\_Standards.html](http://www.cdffa.ca.gov/ahfss/Milk_and_Dairy_Food_Safety/Milk_Standards.html).

also have 10 Coliform limits.<sup>11</sup> Raw milk advocates emphasize that safe raw milk comes from pasture grazed cows and that raw milk is neither safe nor healthy when coming from grain fed cows.

The University of Basel in Switzerland, studied 14,893 children aged 5-13 in five European countries. The study compares allergy and asthma levels in children who drank farm milk (unpasteurized), compared to those who drank pasteurized milk. The children who consumed farm milk had statistically significant lower levels of asthma and allergies.<sup>12</sup>

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This report was produced by Ike Messmore, Amanda Mitchell, and Kate Sease under the Supervision of Professor Anthony Gierzynski on May 21, 2008.

**Disclaimer:** This report has been prepared by the undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the reports does not reflect official policy of the University of Vermont.

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<sup>11</sup> Carol Ness, "California dairies sue to stop enforcement of standard on raw milk" *The San Francisco Gate*, December 28, 2007, retrieved April 28, 2008 from <http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/12/28/BAAPU5K48.DTL%20&type=printable>.

<sup>12</sup> M. Waser, *et al.*, "Inverse association of farm milk consumption with asthma and allergy in rural and suburban populations across Europe," *Clinical and Experimental Allergy*, Volume 37 Issue 5 Page 661-670, May 2007, retrieved April 28, 2008, from <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1365-2222.2006.02640.x>.