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"Don't Have a Cow, Man": Recognizing Herd Share Agreements for Raw Milk

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“DON’T HAVE A COW, MAN!”: RECOGNIZING HERD SHARE AGREEMENTS FOR RAW MILK

Timothy J. Mayer

ABSTRACT

Dissatisfaction with the industrial model of food production has caused many consumers to seek out food produced on local, family-scale farms that use U.S. Department of Agriculture certified organic or other sustainable practices to grow their food and raise their livestock. While almost all of the types of food that are available at the grocery store can also be found at the local farmers market, one food that is difficult to find in many states is raw milk—that is, milk that has not undergone pasteurization (heat treatment). This difficulty lies in the fact that most states prohibit the direct retail sale of raw milk to the final consumer because public health officials and state legislators fear that raw milk may contain bacteria harmful to human health such as E. coli, Campylobacter, and Listeria. However, some consumers reject these warnings and instead believe that raw milk possesses both nutritional and medicinal qualities. Indeed, an ever-increasing body of scientific research published in peer-reviewed journals supports the claim that raw milk consumption can mitigate or prevent some allergies and infections, especially in young children. In order for consumers to obtain raw milk in states where its sale is prohibited, some consumers have entered into arrangements with farmers known as “herd sharing,” through which the consumer effectively becomes an owner of the herd of cows or goats. For the price of the share and a monthly boarding fee, the shareholder can receive a weekly distribution of the herd’s primary dividend, namely the raw milk. Several states expressly permit this practice while most are silent and still a few prohibit it outright. The three courts in the

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United States that have ruled on herd share agreements have split, with two courts rejecting the agreements as a circumvention of the state’s prohibition on the sale of raw milk, and the other court assuming the agreement’s validity in light of the state’s failure to adequately define “sale.” I argue that courts should consistently uphold properly written herd share agreements where such agreements are not prohibited because such agreements are deeply rooted in the longstanding practice of shared ownership agreements for livestock found throughout the agriculture industry. Furthermore, raw milk has been found by some researchers to be a low-risk food that may actually have some nutritional and even medicinal qualities not found in pasteurized milk. And to the extent that raw milk consumption could cause harm, the risk of a large-scale outbreak from milk obtained through a herd share is slight considering how few participants are in any given herd share.

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INTRODUCTION

In its Declaration of Policy to its Milk Sanitation Code, the Rhode Island legislature recognized milk as “one of the most perfect foods afforded by nature.”¹ The Rhode Island legislature is not alone in this sentiment. For well over a century, policy makers, reformers, industrialists, medical professionals, and nutritionists have similarly hailed the “virtuous white liquor”² as “the greatest factor for the protection of mankind.”³ Today, nutritionists value milk for its abundant content of calcium and vitamin D, both of which improve bone health and prevent both cardiovascular disease and type 2 diabetes.⁴ In fact, milk is such a rich source of calcium and vitamin D that the U.S. Department of Agriculture (USDA) recommends that children drink three glasses of it per day.⁵ But despite milk’s apparent “virtue,” it remains a perennial source of conflict in the United States. The manner of milk’s production,⁶ the government subsidies paid to

1. R.I. GEN. LAWS ANN. § 21-2-2 (West 2013). Nevertheless, Rhode Island remains one of the many states that prohibit the sale of raw milk, though it is one of two states (the other is Kentucky, see Appendix A) to allow a limited number of individuals who have a prescription from a doctor to purchase raw goat’s milk directly from a farm. R.I. GEN. LAWS ANN. § 21-2-2 (8) (West 2013) (requiring all milk to be pasteurized, but permitting “a physician [to] authorize an individual sale of goat milk directly from producer to consumer by written, signed prescription.”).
3. Id. at 239 (noting that famed-American nutritionist, Elmer McCollum, discovered that milk is rich in Vitamin A, “a substance present in the fat of whole milk, which acted as the key agent in enabling growth in human beings and animals.”).
5. Id. (noting that most Americans, especially children and women, fall far short of the recommended daily intake of milk or milk products—3 cups per day for adults and adolescents aged 9-18, 2 ½ cups per day for children aged 4-8, and 2 cups per day for children aged 2-3).
6. See Food & Water Watch, What’s in the Water? Industrial Dairies, Groundwater Pollution and Regulatory Failure in California’s Central Valley 7-10 (2011) http://documents.foodandwaterwatch.org/doc/WhatsInTheWater.pdf (finding that industrial dairy farms contribute significant amounts of nitrates, salts, bacteria, and pharmaceuticals to the local groundwater);
the dairy industry,\textsuperscript{7} and even milk’s actual nutritional value, are all regularly contested.\textsuperscript{8} As one author has suggested, milk has a tendency to “reflect cultural preoccupations and deep anxieties in our own era.”\textsuperscript{9}

Perhaps the most contested ground in milk politics\textsuperscript{10} today occurs over consumer access to unpasteurized, or raw, milk.\textsuperscript{11} Pasteurization


\textsuperscript{8} \textit{See generally} FRANK A. OSKI \\& JOHN D. BELL, \textit{DON’T DRINK YOUR MILK!} 12-13 (1977) (noting the prevalence of lactose intolerance among Americans, especially minorities. Lactose intolerance is a contributing factor to gastro-intestinal discomfort); \textit{see also} Karl Michaelsson et al., \textit{Milk Intake and Risk of Mortality and Fractures in Women and Men: Cohort Studies}, 349 \textit{BMJ} g6015, g6015 (2014) (finding that increased consumption of milk does not reduce the risk of fracture and may instead increase the risk of death in both men and women).

\textsuperscript{9} VALENZE, \textit{supra} note 2, at 281 (“Milk has always stood for more than just milk, and its path has always depended on a supporting cast summoned by its association with children and health . . . . With its power to whip up emotion, milk became the flagship of public sentiment about many other food issues in contemporary society.”).

\textsuperscript{10} Pete Kennedy, \textit{State Raw Milk Bills}, \textsc{Farm-to-Consumer Legal Def. Fund} (Mar. 11, 2013) http://www.farmtoconsumer.org/news_wp/?p=5754 (finding that in 2013 alone, at least 15 legislatures considered bills to expand consumer access to raw milk); Additionally, three dairy farmers were put on trial in the United States in 2013 for selling or distributing raw milk to consumers. A Wisconsin jury acquitted a dairy farmer of three of the four counts relating to the distribution of raw milk in a case that
is the treatment of milk and other food and beverage products at high temperatures for a defined period of time.\textsuperscript{12} All states require the pasteurization of milk sold to the final consumer; however, many states allow consumers to acquire raw milk in a few, discrete circumstances.\textsuperscript{13} And while several states still completely bar any consumer access to raw milk, no state bars the consumption of raw milk.

The consumer demand for raw milk is growing.\textsuperscript{14} Today, millions\textsuperscript{15} of consumers, propelled by a renewed interest in local food\textsuperscript{16} and a

11. Raw milk is the unpasteurized secretion of any lactating, female mammal. In addition to human breast milk, North Americans typically consume the milk from cows, goats, or sheep. Lisa Quigley et al., \textit{The Complex Microbiota of Raw Milk}, 37 FEMS MICROBIAL REV. 664, 667 (2013). Raw milk is sometimes referred to as “unpasteurized milk,” “farm milk,” “real milk,” or “fresh milk.” I will use “raw milk” throughout this note for the sake of clarity.


13. \textit{See} Appendix A.


growing discontent with both conventional medicine\textsuperscript{17} and nutrition,\textsuperscript{18} are seeking out raw milk for nutritional benefits that they believe are otherwise absent in pasteurized milk.\textsuperscript{19} Moreover, many raw milk drinkers are passionate\textsuperscript{20} in their belief that regular raw milk consumption can improve their overall physical health and even cure some diseases.\textsuperscript{21} And it is not just anecdotal evidence that shows this, raw milk advocates argue; rather, an ever-increasing body of scientific, peer-reviewed literature suggests that raw milk consumption by children at an early age may prevent asthma, atopy,\textsuperscript{22} and hay fever.\textsuperscript{21}

(applying the 3\% number to the general population and finding that as many as 9.4 million people consume raw milk every year and the number is growing).

http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_MISSI ON (last updated Aug. 19, 2013) (noting, \textit{inter alia}, that the number of farmers’ markets has increased by 67\% since 2008, bringing the total to 7,800).


21. Lauren E. MacDonald et al., \textit{A Systematic Review and Meta-Analysis of the Effects of Pasteurization on Milk Vitamins, and Evidence for Raw Milk Consumption and Other Health-Related Outcomes}, 74(11) J. FOOD PROTECTION 1815, 1815 (2011) (noting that some believe that raw milk consumption can “prevent and treat a wide spectrum of conditions and diseases, including allergies, cancer, and lactose intolerance.”); SCHMID, \textit{supra} note 17, at 81-83.

22. Atopy is a “hereditary allergy characterized by symptoms (such as asthma, hay fever, or hives) produced upon exposure especially by inhalation to the exciting environmental antigen.” \textit{Atopy Definition},
But public health officials are not buying any of it. According to them, “raw milk should not be consumed by anyone, at any time, for any reasons.”\textsuperscript{24} They are quick to reject raw milk’s purported medicinal value as merely anecdotal and wholly unsubstantiated by sound, scientific evidence.\textsuperscript{25} To them, the studies showing raw milk’s potential health benefits are either methodologically deficient or otherwise limited in scope.\textsuperscript{26} Moreover, they adamantly maintain that raw milk harbors harmful, if not deadly, pathogens such as Escherichia coli 0157, Campylobacter jejuni, and Listeria that routinely hospitalize dozens of raw milk consumers each year, many of who are young children, older adults, and other immunocompromised


\textsuperscript{25} \textit{See generally} U.S. FOOD & DRUG ADMIN., Raw Milk Misconceptions and the Danger of Raw Milk Consumption, http://www.fda.gov/Food/FoodborneIllnessContaminants/BuyStoreServ eSafeFood/ucm247991 (last updated Nov. 1, 2011); MacDonald, \textsuperscript{supra} note 21, at 1830.

individuals.\textsuperscript{27} They insist that only pasteurization of milk and milk products can safely eliminate the risk of acquiring any one of these potentially deadly pathogens.\textsuperscript{28}

The crossfire from the raw milk skirmishes between public health officials and raw milk advocates has spilled over into legislatures and courts across the country with increasing vigor in recent years.\textsuperscript{29} Where the federal government’s prohibition of interstate raw milk sales and transfers seems firmly in place,\textsuperscript{30} state legislatures have a free hand in regulating intrastate sales and transfers of raw milk.\textsuperscript{31} So, while all states require the pasteurization of milk sold to the final consumer,\textsuperscript{32} most states have carved out some type of exception permitting certain sales or transfers of raw milk to the final consumer, usually under a narrow set of circumstances.\textsuperscript{33} In those states that have not allowed for an exception, raw milk advocates have turned to quasi-legal arrangements\textsuperscript{34} to obtain raw milk, the most common of

\begin{itemize}
  \item \textsuperscript{27} Am. Acad. of Pediatrics, Consumption of Raw or Unpasteurized Milk and Milk Products by Pregnant Women and Children, 133(1) PEDIATRICS 176, 176 (2014).
  \item \textsuperscript{28} U.S. FOOD & DRUG ADMIN., supra note 25.
  \item \textsuperscript{29} See supra note 10.
  \item \textsuperscript{30} 21 C.F.R. § 1240.61. Since 2007, legislators attempting to legalize the interstate sale and distribution of raw milk have introduced a half-dozen bills into either the U.S. Senate or the U.S. House of Representatives. Not one of these six bills has so much as even received a hearing in its assigned committee. See H.R. 4077, 110th Cong. (2007); H.R. 778, 111th Cong. (2009); S. 1955, 112th Cong. (2011); H.R. 1830, 112th Cong. (2011); Milk Freedom Act of 2014, H.R 4307, 113th Cong. (2014); and Interstate Milk Freedom Act of 2014, H.R. 4308, 113th Cong. (2014). While all six of these bills have been introduced by lions of the Tea Party (Rep. Ron Paul (R-TX), Rep. Thomas Massie (R-KY), and Sen. Rand Paul (R-KY)), the latter three bills—H.R. 1830, H.R. 4307, and H.R. 4308—have received some modest bipartisan support. The most recent bill—H.R. 4308—had twenty-four cosponsors, four of whom were Democrats.
  \item \textsuperscript{31} See Public Citizen v. Heckler, 653 F.Supp. 1229, 1241 (D.C. Cir., 1986).
  \item \textsuperscript{33} See Appendix A; see Farm-to-Consumer Legal Def. Fund, State-by-State Review of Milk Laws (June 21, 2013), http://www.farmtoconsumer.org/raw_milk_map.htm.
  \item \textsuperscript{34} Damian C. Adams et al., Deja Moo: Is The Return to Public Sale of Raw Milk Udder Nonsense?, 13 DRAKE J. AGRIC. L. 305, 318-19 (2008).
\end{itemize}
which is herd sharing. In a herd share, consumers purchase shares in a herd of cows from a farmer rather than the raw milk itself. The consumers, or shareholders, then become the owners of the herd. Ownership of the herd entitles the shareholders to receive the “dividends” from their investment, namely, but not exclusively, the raw milk. However, courts in some states have rejected herd share agreements finding that the milk obtained through herd sharing is little more than an impermissible sale of raw milk rather than a sale of shares in a herd as the parties intend for it to be. Nevertheless, I argue that the courts are getting it wrong because they place a greater burden on the structure of the herd share agreements than on other similar arrangements for the shared ownership of livestock common to agricultural operations across the United States. Moreover, in light of recent scientific evidence published in peer-reviewed journals demonstrating that raw milk is in fact a low-risk food and that it even possesses some intrinsic health benefits, no pressing public policy reason exists for rejecting herd share agreements where the legislature has otherwise remained silent.

In support of my argument, I begin in Part I by describing the development of raw milk regulation in the United States as a response to the widespread contamination of milk and incidence of milkborne disease outbreaks that plagued the nation throughout much of the nineteenth century and the beginning of the twentieth century. In Part II, I examine herd sharing as it exists within the current legal landscape for raw milk. Finally, in Part III, I argue that public health officials overstate the harm from raw milk, especially in light of recent scientific evidence published in peer-reviewed journals that shows both the lack of risk posed by consuming raw milk and that raw milk has intrinsic health benefits not found in pasteurized milk. Furthermore, to the extent that raw milk poses any risk to consumers, I also argue that herd share arrangements possess characteristics that may reduce even further the risk of milk

35. See also id. at 319 (noting that some individuals exploit a loophole in the law that permits the sale of raw milk as “pet food”).


37. Id.

38. Id.


40. See infra note 182.
contamination and widespread outbreaks in the unlikely event of contamination. Lastly, I argue that herd sharing is nothing new; rather, courts should uphold herd share agreements because, properly written, such agreements are simply an investment contract of the type firmly rooted in the history of agistment and clearly related to similar arrangements for the shared ownership of livestock routinely used in agricultural communities across the United States.

I. HISTORY OF RAW MILK IN THE UNITED STATES

Individuals who choose to consume raw milk do so precisely because it is milk that has not been pasteurized. But locating raw milk is not easy for consumers in many parts of the country. Much more ubiquitous is pasteurized milk, which accounts for most of the milk sold and consumed in the United States. Pasteurization is the process of heating milk at a particular temperature for a corresponding length of time. The effect of pasteurization is twofold—both to prolong the shelf-life of milk and to eliminate harmful pathogens that may be in the milk. However, raw milk advocates maintain that pasteurization has a deleterious effect on the nutritional and medicinal quality of raw milk. Public health officials reject this claim and assert that pasteurization merely kills bacteria

41. Katafiasz & Bartlett, supra note 19, at 127.

42. Adam J. Langer, Nonpasteurized Dairy Products, Disease Outbreaks, and State Laws – United States, 1993-2006, 18(3) EMERGING INFECTIOUS DISEASES 385, 389 (2012) (estimating that 193 billion pounds of milk (the dairy industry measures milk in pounds; 8.6 pounds equals one gallon of milk) were produced in the United States in 2010. Some figures suggest that raw milk consumers make up only 1-3% of the population which would put the amount of raw milk produced for human consumption at somewhere between 2 and 5 billion pounds. While imprecise, these numbers offer a general idea as to the disparity between raw milk and pasteurized milk consumption).

43. Ryser, supra note 12, at 132 (explaining that in some instances, milk can be heated to a temperature as low as 62.8°C (145°F) for at least 30 minutes, though it is possible to pasteurize milk for as little as one second so long as the temperature exceeds 135°C (275°F)); Lauren E. MacDonald et al., A Systematic Review and Meta-Analysis of the Effects on Milk Vitamins, and Evidence for Raw Milk Consumption and Other Health-Related Outcomes, 74 J. FOOD PROTECTION 1814, 1814 (2011).

44. Ryser, supra note 12, at 132.

harmful to human health and that it has no other effect on milk outside of a mild impact on its taste. They further dispute the claim that raw milk has any nutritional or medicinal quality beyond that of pasteurized milk.

A. The “Milk Problem” in U.S. History

Even after its discovery in 1864, pasteurization was still not considered by many physicians to be the first choice to clean up milk’s act. At the turn of the nineteenth century, most social reformers acknowledged that the United States had been suffering from a serious “milk problem.” Throughout the nineteenth century, rapid industrialization had drawn to America’s growing cities millions of people from both the countryside and foreign countries, many of whom had been accustomed to drinking milk. To meet the growing demand, milk producers concentrated their cows in confined indoor spaces adjacent to distilleries on the outskirts of cities. Inside, the cows were kept from “fresh air and exercise” and fed a steady diet of distiller’s slop, or as one writer called it, “an acid refuse of grain and water.” The quality of the milk produced by these cows—or “swill milk,” as it was known—was very thin and often appeared to have a bluish hue, causing milk producers and milk dealers to add chalk, starch, and even plaster of Paris to make their milk appear more palatable. Mid-nineteenth century muckrakers exposed these “swill milk” distilleries to a disgusted public, and reform quickly followed, though a few “milk distilleries” continued operating well into the twentieth century.

Yet despite the spate of post-swill milk reforms enacted by state legislatures in the latter part of the nineteenth century, the United States still endured at least twenty-nine reported outbreaks of

47. See generally U.S. Food & Drug Admin., supra note 25.
49. Schmid, supra note 17, at 31.
50. Valenze, supra note 2, at 167.
51. Schmid, supra note 17, at 32; Valenze, supra note 2, at 167.
52. Schmid, supra note 17, at 37.
53. Valenze, supra note 2, at 218; Mendelson, supra note, 48 at 35.
milkborne disease per year between 1880 and 1907.\textsuperscript{54} Indeed, by 1938, a decade before the first state would adopt mandatory pasteurization, milkborne diseases still accounted for nearly 25 percent of all reported disease outbreaks from contaminated food and beverages.\textsuperscript{55}

\textbf{B. Two Possible Solutions to the Milk Problem Emerge}

Two camps of social reformers emerged at the turn of the twentieth century to address the “milk problem,” each with their own explanation of the problem’s source.\textsuperscript{56} One camp, led by the philanthropist Nathan Straus, argued that raw milk itself was the cause of milkborne infections and that only mandatory pasteurization of the milk supply could prevent future milkborne disease outbreaks.\textsuperscript{57} Nevertheless, many pro-pasteurizers such as Strauss viewed pasteurization as merely a temporary stopgap measure until an alternative emerged that could make milk safer.\textsuperscript{58}

The other camp, led by Dr. Henry Coit, maintained that “dirty milk”—\textit{i.e.} both pasteurized and unpasteurized milk—contributed to the outbreak milkborne diseases.\textsuperscript{59} To Dr. Coit’s supporters, poor hygiene and sloppy milk handling practices contaminated the milk supply.\textsuperscript{60} If the farmers and milk handlers could be made to hygienically handle raw milk, then the risk of contamination would be greatly reduced.\textsuperscript{61} To mitigate the risk of milk contamination, Dr. Coit called for the mandatory certification of dairy farms rather than the mandatory pasteurization of all milk.\textsuperscript{62} Coit’s supporters argued that mandatory pasteurization would only serve to absolve unhygienic dairy farmers who continued to produce milk under unsanitary conditions.\textsuperscript{63} If farmers and milk handlers knew that their milk would ultimately be pasteurized, then they would have less incentive to prevent contamination. Raw milk advocates at the time were also

\begin{itemize}
  \item \textsuperscript{54} Jeffrey T. LeJeune & Päivi J. Rajala-Schultz, \textit{Unpasteurized Milk: A Continued Public Health Threat}, 48 \textit{CLINICAL INFECTIOUS DISEASES} 93, 96 (2009); Mendelson, \textit{supra} note 48, at 35.
  \item \textsuperscript{55} Stephen P. Oliver et al., \textit{Food Safety Hazards Associated with Consumption of Raw Milk}, 6(7) \textit{FOODBORNE PATHOGENS & DISEASE} 793, 798 (2009).
  \item \textsuperscript{56} SCHMID, \textit{supra} note 17, at 52; Mendelson, \textit{supra} note 48, at 36.
  \item \textsuperscript{57} SCHMID, \textit{supra} note 17, at 52, 58-59.
  \item \textsuperscript{58} \textit{Id.} at 54.
  \item \textsuperscript{59} \textit{Id.}
  \item \textsuperscript{60} Mendelson, \textit{supra} note 48, at 37.
  \item \textsuperscript{61} \textit{Id.}
  \item \textsuperscript{62} \textit{Id.}
  \item \textsuperscript{63} \textit{Id.}
\end{itemize}
concerned that pasteurization would destroy raw milk’s medicinal value.\textsuperscript{64} Indeed, as late as the 1920s, it was not uncommon for members of the medical community to hail the power of milk to heal patients suffering from blood diseases and diabetes.\textsuperscript{65} In order to secure his vision of a safe raw milk supply, Dr. Coit recruited medical professionals to serve on local “Medical Milk Commissions” in communities across the United States to oversee a certification process ensuring that only the most “honorable dairymen” produced raw milk under “conditions that would assure purity.”\textsuperscript{66}

In spite of Dr. Coit’s best efforts, his Medical Milk Commissions did not catch on as he had hoped they would.\textsuperscript{67} For many, pasteurization appeared to offer a “quick fix” to “an acute problem” and it soon became the only solution to the problem.\textsuperscript{68} To the dairy industry in particular, pasteurization was better suited than raw milk certification for the larger economies of scale necessary to meet a growing demand for safe, clean milk following World War I.\textsuperscript{69} Indeed, the debate over how to best solve the “milk problem” coincided with the discovery of milk’s nutritional properties in the 1920s.\textsuperscript{70} While at first the American public was reluctant to accept pasteurization,\textsuperscript{71} it could not ignore the dramatic decline in child mortality rates in places like New York City where public health officials had exclaimed that pasteurization had played a role in reducing child mortality from 97 deaths per 1,000 children in 1891 to just 34 per 1,000 in 1915.\textsuperscript{72} For a growing number of Americans, pasteurized milk was a small price to pay for safer milk.

C. The Birth of Modern Milk Regulation

1. The Pasteurized Milk Ordinance and State Regulation of Milk

By the 1920s, pasteurization had ceased to be a stopgap measure for its proponents and had instead become a crusade, the completion of which would be nothing less than the pasteurization of all milk sold

\begin{thebibliography}{99}
\bibitem{64} Schmid, supra note 17, at 77.
\bibitem{65} Id.
\bibitem{66} Id. at 54.
\bibitem{67} Mendelson, supra note 48, at 37.
\bibitem{68} Schmid, supra note 17, at 66.
\bibitem{69} Mendelson, supra note 48, at 37; see also Valenze, supra note 2, at 231 (noting that pasteurization made the mass consumption of milk possible, which spelled the end for many small dairy farmers).
\bibitem{70} Mendelson, supra note 48, at 37-38.
\bibitem{71} Valenze, supra note 2, at 228.
\bibitem{72} Schmid, supra note 17, at 68.
\end{thebibliography}
in the United States.\textsuperscript{73} Cities were the first to enact mandatory pasteurization requirements,\textsuperscript{74} but advocates wanted more—they wanted statewide and even national pasteurization requirements to ensure the safety of the milk supply.\textsuperscript{75} A solution arrived in 1924 when the U.S. Public Health Service (USPHS) promulgated its first set of milk standards now known as the Pasteurized Milk Ordinance (PMO).\textsuperscript{76} The PMO is a set of voluntary guidelines intended for adoption by states, counties, and municipalities “to encourage a greater uniformity and a higher level of excellence of milk sanitation practice in the United States.”\textsuperscript{77} The USPHS’s interest in promulgating the PMO was twofold: First, it recognized that milk was supreme among all foods for its ability to deliver nutrients to children and the elderly.\textsuperscript{78} But it also understood that milk could easily transmit harmful pathogens.\textsuperscript{79} Consequently, the PMO offered a program of milk sanitation that its authors believed would drastically reduce the incidence of milkborne disease transmission in the United States. Included among the PMO’s many provisions was a strikingly simple pasteurization requirement, stating that “only Grade ‘A’ pasteurized . . . milk . . . shall be sold to the final consumer.”\textsuperscript{80} Today, the USPHS considers its response to the “milk problem” as “one of its oldest and most respected activities.”\textsuperscript{81} Michigan became the first state to adopt the PMO and its mandatory pasteurization requirement in 1948.\textsuperscript{82} Now, all but four states have adopted the PMO.\textsuperscript{83}

\textsuperscript{73} Id. at 60.
\textsuperscript{74} See Carl W. Hall & G. Malcolm Trout, Milk Pasteurization 10 (1968).
\textsuperscript{75} Valenze, supra note 2, at 220.
\textsuperscript{77} Id. at vi.
\textsuperscript{78} Id. at iii.
\textsuperscript{79} Id.
\textsuperscript{80} Id. at 119.
\textsuperscript{81} Id. at iii.
\textsuperscript{82} Hall & Trout supra note 74, at 10.
2. Federal Regulation of Raw Milk

By the 1970s, pro-pasteurizers wanted more from the federal government than a set of guidelines that the states were not required to adopt. Indeed, they wanted the federal government to prohibit both the interstate and intrastate sale and distribution of all raw milk.84 In response, the FDA promulgated a regulation in 1973 that required the pasteurization of all milk entering interstate commerce.85 However, a medical milk commission—perhaps one of the last remaining vestiges of Dr. Coit’s raw milk certification movement—objected to the rule, arguing that some raw milk, specifically raw milk that was certified, was perfectly safe and that the federal government did not have the authority to regulate it under section 401 of the Food, Drug and Cosmetic Act.86 The FDA agreed and stayed the rule insofar as it affected the sale of interstate certified raw milk while nonetheless requiring the pasteurization of all non-certified raw milk in interstate commerce.87 Dissatisfied, milk reformers sued the FDA to require the pasteurization of all milk—whether certified or otherwise—and not just all milk in interstate commerce, but also all milk in intrastate commerce.88 They argued that the FDA had amassed enough data to show that the “consumption of certified raw milk presented a serious risk to human health.”89 The court agreed with the milk reformers and ordered the FDA to subject all raw milk in interstate commerce to pasteurization, reasoning that citizens in neighboring states harmed by raw milk from across the border could not affect the political process in the state from which they received the raw milk.90 The court however refused to require the FDA to

84. Public Citizen, 653 F.Supp. at 1241 (“Public Citizen asks this Court to compel the agency to promulgate a rule banning both interstate and intrastate sales of raw milk.”) (emphasis added).
85. Id. at 1232.
86. Id.
87. Id.
88. Id. at 1241.
89. Id. at 1232.
90. Id. at 1241. (“It is precisely this sort of situation, where a decision made at a local level affects unrepresented persons outside of the locality, that a higher level of government is needed to intervene to protect the interests of the unrepresented parties.”). After the trial, the FDA promulgated the following rule that reads in part: “No person shall cause to be delivered into interstate commerce or shall sell, otherwise distribute, or hold for sale or other distribution after shipment in interstate commerce any milk or milk product in final package form for direct human consumption [that has not been pasteurized].” 21 C.F.R. § 1240.61(a). This regulation is widely recognized to prohibit herd shares from operating in interstate commerce if the farmer is delivering
promulgate regulations that would bar the intrastate sale of raw milk, stating that such a prohibition would only be required if it were necessary to effectuate the interstate ban on raw milk.\textsuperscript{91}

II. STATE REGULATION OF RAW MILK TODAY

While the Public Citizen court prohibited the interstate sale of raw milk, states were still free to regulate the intrastate sale of raw milk.\textsuperscript{92} Some states have allowed the PMO and its pasteurization requirement to be the final word on the exchange of raw milk within its jurisdiction. Thus, in those states, “only Grade ‘A’ pasteurized... milk . . . shall be sold to the final consumer.” Still, other states—including even those that have adopted the PMO—have decided to regulate around the PMO in order to permit some degree of consumer access to raw milk. In states that permit access to raw milk, consumers may obtain raw milk through any of the following five ways: \textsuperscript{93}

1) a retail sale at an off-farm location;

2) a sale that takes place on the farm where the milk was produced;

3) participation in a herd share;

4) by purchasing raw milk marketed as “pet food” or “animal feed;” and

5) with a written prescription from a doctor for raw goat’s milk.

the shareholder’s milk across the border. \textit{See} United States v. Allgyer, 2012 WL 355261 at 4, n.15 (E.D. Penn, Feb 3, 2012). However, it is not illegal for an individual to transport raw milk across state lines for that individual’s personal use. \textit{U.S. FOOD & DRUG ADMIN., Food Safety and Raw Milk, available at http://www.fda.gov/food/foodborneillnesscontaminants/buystoreservesafe/food/ucm277854.htm (last updated Mar. 22, 2013)} (“With respect to the interstate sale and distribution of raw milk, the FDA has never taken, nor does it intend to take, enforcement action against an individual who purchased and transported raw milk across state lines solely for his or her own personal consumption.”).


93. \textit{See Appendix A}. 

398
Retail sales are the most permissive form of consumer access to raw milk. If the state permits the retail sale of raw milk, it presumably permits any other method of acquiring raw milk including herd sharing. In a state that merely prohibits the sale of raw milk, the risk for herd sharing is that a court may determine that it is merely a “sham sale” of raw milk to the final consumer rather than a sale of shares in a cow. However, if the state permits retail sales, a “sham” is impossible since a straightforward sale would be legal.

On-farm sales of raw milk represent the next most permissive tier of access. For example, if a state permits the on-farm sale of raw milk, then it would also presumably permit all other forms of access to raw milk except for retail sales that take place away from the farm, such as those that occur at a grocery store or at a farmers market. Obviously, those states that permit either retail or on-farm sales include both the sale of raw milk for pet food and the sale of raw milk to fulfill a written prescription from a doctor.

More difficult questions arise for those states that permit on-farm sales subject to significant restrictions. Would those states also permit herd sharing? For example, Oregon allows a farmer to sell raw milk from the farm only if the size of his herd does not exceed three cows. If another farmer in Oregon operates a herd share, must she have three cows or fewer or may she have as many cows as she wishes since she is not selling milk, but rather shares in a herd? And what of the states that have only adopted the Pasteurized Milk Ordinance’s pasteurization requirement, stating simply that “only Grade ‘A’ pasteurized . . . milk . . . shall be sold to the final consumer”—will those states tolerate herd shares operating within their borders?

The answer to those questions has turned on whether one is inclined to consider a herd share as little more than a sale of raw milk for consideration or a sale of shares in a herd for consideration. Herd share advocates obviously take the latter view. Indeed, to them, herd sharing has emerged as an alternative for consumers and farmers to

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94. Or. Rev. Stat. Ann. § 621.012 (West 2013) (permitting the on-farm sale of raw milk from three or fewer cows that have calved at least once and nine or fewer goats or sheep that have lactated at least once).

95. U.S. Food & Drug Admin., Grade “A” Pasteurized Milk Ordinance, supra note 76, at 119.

96. Ron Schmid notes that the cow share began in 1995. Schmid, supra note 17, at 390. However, the Virginia Supreme Court indicates that some version of goat sharing began as early as the 1980s. Kenley v. Solem, 237 Va. 202, 203 (1989) (citing Solem I where the farmer had previously defended her goat share operation); see also Carbaugh v. Solem, 225 Va. 310 (1983) (Solem I).
share responsibility for the herd. In a herd share, consumers and farmers enter into an agreement for the sale of an ownership share in a herd of cows. The shareholders also agree to pay a monthly boarding fee to the farmer for the duration of the agreement. Consequently, the farmer no longer operates as the owner of the herd; rather, the investors become the herd owners while the farmer effectively becomes the “manager” of the herd. Purchase of a share entitles the investor to certain “dividends” which may include any of the following: a weekly share of raw milk, proceeds from any sale of the individual cows, show winnings from any of the cows (i.e., if the farmer takes a cow to the county or state fair and that cow were to win the blue ribbon prize), and meat from any cow that is slaughtered.

A. Herd Sharing

Herd sharing is not as uncommon as it may sound. Indeed, herd shares operate in as many as thirty states. In several of these states, herd sharing is expressly permitted by statute, regulation, or policy. In the other states, the legality of herd sharing turns on how a state treats raw milk sales. Where sales of raw milk are legal, herd shares may only be able to operate to the extent that farms offering raw milk for sale can operate. So, for example, if a state limits the sale of raw milk to 500 gallons of raw milk per month, then a herd share may not be able to distribute more than 500 gallons of raw milk per month. However, where a state prohibits the sale of raw milk, herd shares operate with less certainty. And obviously, in those states that have expressly prohibited herd sharing, herd shares operate in violation of the law.


98. Id.

99. Id.

100. Id.

101. Id.

102. See Appendix B.

103. Id.
Figure 1. A continuum of raw milk regulation, from the most permissive type of regulation to the most restrictive type of regulation.

The legality of herd sharing is perhaps best thought of in terms of a continuum. On the most permissive end of the continuum are those states where either the legislature or a regulatory agency has expressly permitted herd sharing. In those states, herd shares that meet the statutory criteria operate with the highest degree of certainty. Following closely are those states where an agency has issued a policy permitting the practice.  

104 Here, of course, the state agency issuing the policy could simply rescind the policy.

105 See Appendix A; those seven states are Alaska, Colorado, Idaho, Michigan, North Dakota, Tennessee and Wyoming.

106 IND. STATE BD. OF ANIMAL HEALTH, REPORT ON THE ISSUES OF SELLING UNPASTEURIZED MILK TO CONSUMERS 2 (Nov. 2, 2012) (“Currently individuals are acquiring raw milk from producers through cow or herd share arrangements and pet food sales believing that these transactions are outside the current state statute requiring milk to be pasteurized. The current pasteurization statute does not explicitly contemplate these arrangements, creating uncertainty for regulators, producers and consumers as to the legal status of these transactions and arrangements.”).

107 See Appendix B.

Next on the continuum are those states that already permit retail sales of raw milk with those states that permit only limited on-farm sales of raw milk following close behind.\textsuperscript{109} Here, since raw milk sales are legal to varying degrees, it matters little if a court were to find that a herd share agreement were a “sham” sale of raw milk rather than a sale of a share in the herd so long as the herd share were operating within the perimeters of the requirements for the sale of raw milk. For instance, Mississippi permits only the “incidental sale of raw goat milk” from farms containing nine goats or fewer.\textsuperscript{110} Just like the three-cows-or-fewer rule in Oregon or the 500-gallon per month limit in Arkansas, a herd share in Mississippi may only be able to operate within the statutory perimeters restricting raw milk sales to an “incidental sale of raw goat milk.” Altogether, twenty-seven states permit either the retail sale of raw milk, its on-farm sale, or its sale to fulfill a written prescription.

Next in line are those states that have adopted only the Pasteurized Milk Ordinance’s pasteurization requirement (or similar language) that states, “only Grade ‘A’ pasteurized . . . milk . . . shall be sold to the final consumer.”\textsuperscript{111} Here, the herd share operates in a “gray area” where it is neither expressly permitted nor expressly prohibited under the law. Nine states have no additional law or regulation regarding raw milk beyond the PMO or some similar language.\textsuperscript{112} In these states, the validity of a herd share arrangement may turn on whether a court decides to see the herd share as a sale of raw milk for consideration or as a sale of shares in a herd. This gray area is the focus of my Note.

Finally, on the opposite, most restrictive end of the continuum are those states that have expressly prohibited herd sharing. Herd shares operating at this end of the continuum do so in violation of the

\textsuperscript{109} The pitfall here is that these states could prohibit herd sharing while permitting some type of sale. \textit{See} Utah Code Ann. § 4-3-14(2) (West 2013) (permitting on farm sale of raw milk); \textit{but see id.} § 4-3-10(16) (making it unlawful to “own, operate, organize, or otherwise participate in a cow-share program where the milk producing hoofed mammal is located in Utah.”); Additionally, if a court confronted with a herd share agreement were to find that the agreement represented merely a sale of raw milk than a sale of a share in a herd of cows, then the herd share may only be able to operate to the extent that milk producers are able to sell milk in the state. \textit{See, e.g.,} Miss. Code Ann. § 75-31-65(3) (West 2013) (prohibiting the sale of raw milk except for “incidental sales of raw goat milk” under certain conditions).

\textsuperscript{110} \textsuperscript{111}. U.S. Food & Drug Admin., Grade “A” Pasteurized Milk Ordinance, \textit{supra} note 76, at 119.

\textsuperscript{112} \textit{See} Appendix A.
law. Six states expressly prohibit herd shares.\textsuperscript{113} Also, some states that permit sales nonetheless forbid herd shares. For instance, Utah permits on-farm sales, but expressly prohibits herd shares.\textsuperscript{114}

Altogether, nineteen states appear to permit herd shares.\textsuperscript{115} These states include both those that have recognized herd sharing in their laws, regulations, and policies and also those states that permit the unrestricted retail sale of raw milk. Six states expressly prohibit herd shares. This leaves twenty-five states where the legal status of the herd share is uncertain to varying degrees. Many of these twenty-five states permit some degree of on-farm raw milk sales. But it is unclear how a court in a state that permitted on-farm sales would treat a herd share arrangement that exceeded the statutory perimeters. For example, how would a court in Arkansas treat a herd share that distributed more than 500 gallons of raw milk per month to its shareholders? Or, how would a court treat a herd share that distributed its milk to its shareholders at an off-farm location such as a parking lot? Finally, herd shares in those twenty-five states that do not permit on-farm sales and merely have enacted some form of the PMO operate in the greatest uncertainty.

\textbf{B. Herd Sharing and Judicial Uncertainty}

Perhaps somewhat surprisingly, some of the states with the highest number of herd shares fall into this “gray area”—the states that have no additional law except for the Pasteurized Milk Ordinance’s requirement that “only Grade ‘A’ pasteurized . . . milk . . . shall be sold to the final consumer.”\textsuperscript{116} Consequently, producers, consumers, and regulators in those states operate with a high degree of uncertainty. Some believe that since herd sharing is not expressly illegal, that it is therefore legal.\textsuperscript{117} Together, four of those states—Ohio, Kentucky, Virginia and Indiana—have 155 of the 363 listed

\textsuperscript{113} See Appendix A; Florida, Louisiana, Maryland, North Carolina, Utah, and West Virginia.

\textsuperscript{114} \textsc{Utah Code Ann.} § 4-3-14 (2) (West 2013) (permitting the on-farm sale of raw milk); \textit{but see id. at} § 4-3-10(16) (Making it unlawful to “own, operate, organize, or otherwise participate in a cow-share program where the milk producing hoofed mammal is located in Utah.”).

\textsuperscript{115} This number includes Indiana but excludes Nevada since, for all practical purposes, raw milk is illegal.

\textsuperscript{116} \textsc{U.S. Food \\& Drug Admin.}, Grade “A” Pasteurized Milk Ordinance, \textit{supra} note 76, at 119.

\textsuperscript{117} \textit{See, e.g., Avery Branch Farms, Raw Milk Cow Shares,} http://www.averysbranchfarms.com/cowshareinfo.htm (“In Virginia, it is illegal to buy and sell raw milk . . . . But it is not illegal to drink fresh milk from the cow that you own!”).
herd shares\textsuperscript{118} on the Weston A. Price Foundation’s Campaign for Real Milk website, a clearinghouse for raw milk producers and consumers.\textsuperscript{119} Indeed, while Virginia leads the nation with eighty-eight herd share operations,\textsuperscript{120} its legislature and state agencies are silent\textsuperscript{121} on the issue of herd sharing, even though the Virginia Supreme Court struck down a herd share agreement in 1989.\textsuperscript{122} In that case, shareholders paid $50 for a share of a goat plus a $3 per day boarding fee.\textsuperscript{123} The court rejected the agreement, finding that the $3 per day “fee” was little more than a sham for payment for the gallon of milk.\textsuperscript{124} Furthermore, the court stated that it would “look to the substance of the transaction and not to its formal trappings” to determine the validity of the agreement.\textsuperscript{125}

Another state in the “gray area,” Ohio, has as many as twenty-five herd shares\textsuperscript{126} while having a law similar to the PMO that prohibits the sale of raw milk to the final consumer.\textsuperscript{127} But unlike the court in Virginia, an Ohio court sided with the farmer in upholding the herd share arrangement. The court stayed the Ohio Department of Agriculture’s injunction against a dairy farmer after the Department had found that the farmer’s distribution of raw milk through her herd share constituted an impermissible sale of raw milk.\textsuperscript{128} However, the court did not necessarily base its ruling on the substance of the herd share agreement; rather, the court rejected the Department’s categorization of the herd share agreement as an impermissible sale due to the Department’s own “inexact practice” of allowing some cow owners (\textit{i.e.}, dairy farmers) to consume raw milk

\textsuperscript{118} See Appendix B.
\textsuperscript{119} Id.
\textsuperscript{120} Id.
\textsuperscript{121} Mike Hixenbaugh, \textit{Life, Liberty, and the Pursuit of Raw Milk}, VIRGINIAN-PILOT, Jan. 7, 2013, http://hamptonroads.com/2013/01/life-liberty-and-pursuit-raw-milk (quoting one state regulator, stating that, “‘cow shares are an attempt to circumvent the illegality of raw-milk sales,’” but adding that there had been “no effort to crack down on them in Virginia.”).
\textsuperscript{123} Id.
\textsuperscript{124} Id.
\textsuperscript{125} Id.
\textsuperscript{126} See Appendix B.
\textsuperscript{127} OHIO REV. CODE ANN. § 917.04 (West 2013).
\textsuperscript{128} Schmitmeyer v. Ohio Dept. of Agric., No. 06-CV-63277, at 13 (Darke Cnty. Cir. Ct., Dec. 29, 2006).
but not other owners (such as the farmer’s shareholders). The court dismissed the Department’s argument that the herd share agreements circumvented the law prohibiting the sale of raw milk by pointing out that the Department’s own “inexact practice” of allowing dairy farmers, their families, and their employees to take and consume raw milk would then necessarily be a circumvention itself. Absent a definition of “sale,” the Court could not decide what constituted an impermissible sale based on the Department’s “inexact practice.” Nevertheless, herd share advocates have heralded the Schmitmeyer Court’s decision as “legalizing” herd shares in Ohio.

Still, courts in other jurisdictions with statutes similar to Ohio have engaged in more searching reviews of the text of the herd share agreement in order to determine whether the agreement is merely an impermissible sale of raw milk by another name. In Iowa, where the law is similar in spirit to Ohio, a court invalidated a shareholder’s agreement after she challenged the state agriculture department’s injunction against the farmer who milked and boarded her cows. There, the Iowa court identified several deficiencies with the shareholder agreement. First, it noted that the shareholder was entitled to no other benefit than raw milk. This meant, in part, that the shareholder was “not entitled to any profit or benefit in

129. Id. at 9.
130. Id.
131. Id.
132. David Cox, Ruling Overturns State’s Aggressive Campaign Against Raw Milk Operators, WESTON A. PRICE FOUND. CAMPAIGN FOR REAL MILK, http://www.realmilk.com/state-updates/herdshare-arrangements-ruled-legal-in-ohio (last updated on Dec. 29, 2012); see also Christina Morgen, Governor Ends State’s Case Against Dairy Farmer, WOSU (Mar. 21, 2007), http://wosu.org/2012/news/2007/03/21/governor-ends-states-case-against-dairy-farmer (noting that following Schmitmeyer’s victory at trial, the Ohio Department of Agriculture appealed the ruling only to have the appeal called off by Gov. Strickland who noted that the appeal was “not in the state’s interest.”).
133. See Schmitmeyer, No. 06-CV-63277, at 2 (stating that the one-page herd share agreement consisted of a flat fee of $50.00 for the share, followed by a “boarding fee” of $6.00 to be paid upon pick up of the shareholder’s raw milk).
134. Compare IOWA CODE ANN. § 192.103 (West 2013) (“Only grade ‘A’ pasteurized milk . . . shall be sold to the final consumer.”) with OHIO REV. CODE ANN. § 917.04 (West 2013) (“No raw milk retailer shall sell, offer for sale, or expose for sale raw milk to the ultimate consumer.”).
136. Id. at 15.
proportion to her interest in the herd nor is she obligated for any losses incurred.” 137 Second, the court found that “the shareholder cannot dispose of her shares except to sell them back to the farmer.” 138 Indeed, the court found that the full title to the cows remained in farmer’s name 139 meaning that he alone could exclude others from claiming ownership of the cows. 140 Third, the court found that “the shares are contingent on all other shareholders remaining in effect.” 141 Fourth, the farmer could terminate the agreement almost without consequence. 142 The court additionally noted that the parties had undervalued the price of a cow by nearly 150 percent. 143 It finished off its rebuke of the herd share agreement by characterizing the Bill of Sale and the Herd Boarding Agreement as “nothing more than a set of guidelines for Slippy and [the farmer] in the exchange of raw milk for a pre-paid fee.” 144

Herd share skepticism is not limited to U.S. courts. An Ontario appellate court had many of the same concerns as the Iowa court about the substance of a herd share arrangement at issue in a 2011 case. 145 There, the provincial government of Ontario had appealed a lower court’s acquittal of a dairy farmer on all nineteen charges related to the farmer’s herd share. 146 The appellate court overturned the acquittal, finding that the herd share agreement insufficiently vested in the shareholders a property interest in the herd. 148 The court found that the agreement failed to include a bill of sale or any type of corporate structure, thus indicating that the full title to the herd

137. Id.
138. Id.
139. Id.
140. Id.
141. Id.
142. Id.
143. Id.
144. Id. at 17.
145. Her Majesty the Queen v. Schmidt, 2011 O.A.C. 4911-999-07-0384-00 (Can.).
146. Id. at para. 4. Among the statutes Ontario alleged the farmer to have violated included Section 18(1) of the Health Protection and Promotion Act, R.S.O. 1990 c. H.7, s. 18(1) which states that “[n]o person shall sell, offer for sale, deliver or distribute milk or cream that has not been pasteurized or sterilized in a plant that is licensed under the Milk Act.”
147. Id. at para. 58.
148. Id. at para. 51.
remained with the farmer and not his shareholders. To the court, the arrangement merely “approximate[d] membership in a ‘big box’ store that requires a fee to be paid in order to gain access to the products located therein.” Still, the court’s analysis of the herd share agreement reached further than even the Iowa court’s analysis; here, the Ontario court wanted some evidence that the shareholder as an “owner” of the cows played a role akin to that of a farmer in the day-to-day management of the herd.

The conflicting court rulings over the past twenty-five years have created greater uncertainty for herd share participants in states with no further guidelines other than the PMO requirement that “only Grade ‘A’ pasteurized . . . milk . . . shall be sold to the final consumer.” Only one court in the United States—the Ohio court in Schmitmeyer—appears to have upheld a herd share arrangement; however, it never reviewed the text of the agreement because it found that the state failed to sufficiently define “sale.” The Virginia court in Kenley v. Solem similarly ignored the text of the herd share agreement, but unlike the Ohio court, it rejected the agreement outright stating simply that it would “look to the substance of the transaction and not to its formal trappings.” The Iowa court in Slippy also rejected the agreement, but in doing so, ignored the Virginia court’s guidance by closely reading the “formal trappings” of the agreement. There, the Iowa court found multiple deficiencies in the agreement including 1) the shareholder’s only dividend was the milk; 2) that the shareholder could only dispose of the share by selling it back to the farmer and that the title to the cows remained entirely with the farmer; 3) the shares were contingent on the remaining shares staying in effect; and 4) that the farmer could terminate the agreement at any moment. It also found that the parties had undervalued the price of a cow by 150 percent. Most of these deficiencies can be taken care of by more thoughtful drafting of the herd share agreement—for instance, the parties can add additional benefits such as the shareholder receiving a portion of the proceeds on the disposition of any cow in the herd (i.e. a portion of the meat after

149. Id.
150. Id.
slaughter or the proceeds of the sale). Likewise, the agreement can be drafted to preclude the farmer from terminating the agreement at any time and it can also be amended to allow the shareholder to transfer his share to a third party. The Ontario court added another requirement that the owner of the cows must actually work with the cows. A labor requirement is somewhat perplexing given that many shareholders of various enterprises are not actively involved with their operation of the business; however, their status as a shareholder is not questioned. Read together, none of the courts that have rejected herd share agreements provide a convincing legal theory as to why these agreements should be subjected to scrutiny that is any more exacting than what is applied to other similar types of agreements for the shared ownership of livestock.

In spite of four rulings, three of which were in the United States in jurisdictions with similar raw milk laws, the law as it relates to herd sharing remains unsettled and uncertain, subject to interpretation by regulators and county judges. Indeed, even if a judge in one county finds in favor of a herd share, a judge in another county may find differently in any subsequent case. Similarly, a state such as Indiana that appears to tolerate herd shares may cease to do so if a new administration takes power. With well over a hundred herd share operations in states with laws similar to the PMO, many herd share operations are at risk of being put out of business with a single adverse court ruling or administrative action.

### III. Herd Shares Reconsidered

In order to bring a higher degree of certainty to farmers, consumers, and regulators, I argue that courts and legislatures should recognize herd sharing as a valid legal arrangement for several reasons. First, recent studies have shown that raw milk does not...
present nearly as great a risk to human health as public health officials claim; moreover, recent studies in peer-reviewed journals show that raw milk has medicinal qualities beyond that of pasteurized milk. Second, to the extent that raw milk consumption does present a risk of acquiring a foodborne illness, herd sharing offers a unique opportunity to mitigate the occurrence and severity of milkborne disease outbreaks. Lastly, health risks aside, herd sharing is not some “mere subterfuge” to skirt the law prohibiting sales of raw milk; rather, properly written herd share agreements represent a type of shared ownership arrangement in livestock that is firmly rooted in the long history of agistment, one that is still widely practiced in agricultural operations across the United States today.

A. Public Health Officials Overstate the Danger of Raw Milk

Public health officials and lawmakers frequently use the threat of harm to consumers to justify restrictions on the sale and transfer of raw milk. However, risk is present every time we eat. No food product or beverage, including pasteurized and unpasteurized milk, is entirely safe. Indeed, in the United States alone, foodborne illnesses kill as many as 3,000 people and hospitalize 128,000 each year while sickening an estimated one in six Americans each year. Dairy products, however, account for less than 1 percent of all reported foodborne illness outbreaks in a given year. Between 1993 and 2006, public health officials noted fifty-six outbreaks from fluid milk products that resulted in over 3,000 illnesses, ninety-one hospitalizations, and zero fatalities (in 2014, the CDC released a follow up study in which it purported to show that, between 2007 and 2012, 81 outbreaks associated with raw milk were reported resulting

154. United States v. Allgyer, 2012 WL 355261 at 4, n.15 (E.D. Penn, Feb. 3, 2012) (calling the herd share agreement “merely a subterfuge to create a transaction disguised as a sale of raw milk to consumers. The practical result of the arrangement is that consumers pay money to [the farmer] and receive raw milk, which is transported across state lines and left at a ‘drop point.’ As such, despite any artful language, the agreement involves the transfer of raw milk for consideration, which constitutes a sale and is lawfully regulated by the FDA.”).

155. See, e.g., Letter from Brian Sandoval, Governor of Nevada, to Ross Miller, Secretary of State of Nevada (Jun. 6, 2013) (citing the heightened risk of foodborne illness associated with raw milk for vetoing a bill that would have expanded consumer access to raw milk in Nevada).


in 979 illnesses and 73 hospitalizations with no deaths).\textsuperscript{158} To compare, leafy vegetables accounted for the highest proportion of estimated illnesses between 1998 and 2008, sickening over two million people.\textsuperscript{159} Instead of seeking to ban the sale or distribution of leafy vegetables (as is commonly done for raw milk), public health officials merely caution that properly preparing and cleaning fruits and vegetables can eliminate much of the risk associated with foodborne diseases.\textsuperscript{160}

Milk, whether it is pasteurized or not, presents a unique opportunity for contamination. While “milk in the udder of healthy animals is sterile,”\textsuperscript{161} milk nevertheless provides a “high nutrient content” in which bacteria, both harmful and beneficial, can thrive.\textsuperscript{162} Consequently, milk from healthy cows can only transmit foodborne pathogens to humans if the milk becomes contaminated by contact with pathogens in the exterior environment.\textsuperscript{163} Dirty bulk tanks and

\textsuperscript{158}. Langer, supra note 42, at 387; but see Trisha Robinson et al., Raw Milk Consumption Among Patients with Non-Outbreak-related Enteric Infections, Minnesota, USA 2001-2010 MINN. DEPT. OF HEALTH, ST. PAUL (Dec. 11, 2013), available at http://www.foodsafetynews.com/files/2013/12/RawDairyMDH.pdf (noting that the number of reported illnesses likely only account for only a “small proportion” of the total number of individuals poisoned by drinking raw milk); Elizabeth A. Mungai, Increased Outbreaks Associated with Nonpasteurized Milk, United States, 2007-2012, 21 EMERGING INFECTIOUS DISEASES 119, 120 (2015).

\textsuperscript{159}. John A. Painter et al., Attribution of Foodborne Illness, Hospitalizations, and Deaths to Food Commodities by using Outbreak Data, United States, 1998-2008 19 EMERGING INFECTIOUS DISEASES 3, 6 (2013) (finding that leafy vegetables accounted for 22% of all estimated foodborne illnesses between 1998 and 2008).

\textsuperscript{160}. CDC: Leafy Greens Most Common Culprit Behind Food Poisoning, CBSNEWS.COM (Jan. 29, 2013) http://www.cbsnews.com/news/cdc-leafy-greens-most-common-culprit-behind-food-poisoning (“a government researcher . . . said the finding shouldn’t discourage people from eating produce. Experts repeated often-heard advice: Be sure to wash those foods or cook them thoroughly.”); but see Nadine Ijaz, Unpasteurized Milk: Myths and Evidence, Grand Rounds Presentation, British Colombia Centre for Disease Control, 37, 38 (May 16, 2013) (noting the difference in messages from public health officials following reports of foodborne disease outbreaks from raw milk versus outbreaks from other foods). It should be noted that Ms. Ijaz has since published the findings contained in her Grand Rounds Presentation. See generally Nadine Ijaz, Canada’s ‘Other’ Illegal White Substance: Evidence, Economics and Raw Milk Policy, 22(1) HEALTH L. REV. 26 (2014).

\textsuperscript{161}. Ryser, supra note 12, at 142.

\textsuperscript{162}. Quigley, supra note 11, at 664.

\textsuperscript{163}. LeJeune, supra note 54, at 93.
dirty teats are common sources of contamination in the exterior environment. While pasteurization can be effective in eliminating bacteria present in raw milk up to the point of pasteurization, pasteurized milk itself is not inoculated from further contamination by virtue of already having been pasteurized. Indeed, once pasteurized, milk can still become contaminated upon contact with another contaminated source (such as the milk hauling system).

Both the frequency of milkborne disease outbreaks and the scope of those outbreaks differ for both raw milk and pasteurized milk. While raw milk consumption tends to result in a higher rate of foodborne disease outbreaks than pasteurized milk, a single outbreak of pasteurized milk has the capacity to infect hundreds of thousands of consumers and even kill people. For instance, in the 1980s, a massive disease outbreak in pasteurized milk resulted in the estimated infection of 168,791 to 197,581 individuals throughout the

164. A.M. Elmoslemany et al., The Association Between Bulk Milk Analysis for Raw Milk Quality and On-Farm Management Practices, 95 PREVENTIVE VETERINARY MED. 37, 39 (2010); S.P. Oliver et al., Foodborne Pathogens in Milk and the Dairy Farm Environment: Food Safety and Public Health Implications 2 FOODBORNE PATHOGENS & DISEASE 115, 120 (2005) (noting that the “presence of foodborne pathogens in bulk tank milk (raw milk) seems to be directly linked to fecal contamination that occurs primarily during the harvesting of raw milk.”).

165. Oliver et al., supra note 164, at 122.

166. Id. at 122-23.

167. Langer, supra note 42, at 387; but see Weston A. Price Foundation, CDC Cherry Picks Data To Make Case Against Raw Milk, http://www.westonaprice.org/press/cdc-cherry-picks-data-to-make-case-against-raw-milk (last updated Feb. 22, 2012) (noting that the researchers, affiliated with the CDC, appeared to conveniently stop their review of milkborne outbreaks at 2006). In 2007, three individuals died after consuming pasteurized milk. Ctr. for Disease Control & Prevention, Outbreak of Listeria monocytogenes Infections Associated with Pasteurized Milk from a Local Dairy – Massachusetts, 2007, 57(40) MORBIDITY & MORTALITY WEEKLY REP. 1097, 1097 (2008). The Langer study was published in 2012 and presumably the information pertaining to the Massachusetts outbreak was available to the authors. WAPF also asserts that the number of all outbreaks resulting from dairy products annually is statistically insignificant in light of the total annual number of foodborne related incidents which it puts at approximately 24,000.

168. Caroline A. Ryan et al, Massive Outbreak of Antimicrobial-Resistant Salmonellosis Traced to Pasteurized Milk, 258 JAMA 3269, 3269 (1987) (estimating that between 168,791 and 197,581 people were infected with antimicrobial-resistant Salmonella typhimurium after consuming pasteurized milk from a single dairy plant, thus making it the largest outbreak of its type ever reported in the United States).
Midwest, killing as many as eighteen people. More recently, in 2007, contaminated pasteurized milk killed three people in Massachusetts and a 2006 outbreak of *Campylobacter* in pasteurized milk sickenened as many as 1,600 inmates in the California prison system.

The scope of raw milk outbreaks has been significantly more limited than pasteurized milk. Indeed, researchers have found that ten foodborne disease outbreaks involving pasteurized fluid milk resulted in 2,098 illnesses from 1993 until 2006. Raw milk outbreaks were much more localized with forty-six outbreaks resulting in 930 illnesses during that same period. The consumption of any food carries with it some level of risk, and this includes both raw milk and unpasteurized milk.

Not all raw milk is the same. Some types of raw milk may be safer than other raw milk. Raw milk procured through herd shares makes up only a small portion of the total number of illnesses and outbreaks for all raw milk. From 2011 until 2013, herd shares accounted for only six of the twenty-two reported cases of foodborne disease outbreaks of raw fluid milk. During that same time, raw milk reportedly sickened 366 individuals and hospitalized eighteen, however raw milk from herd shares only accounted for eighty-seven reported illnesses and three hospitalizations.

Pasteurization is not the only method to ensure the safety of milk. Indeed, the reduction in milkborne disease outbreaks since the 1930s is not solely attributable to pasteurization; rather, a host of technological and scientific advances in the latter half of the twentieth century in addition to pasteurization such as milk testing, disease

169. *Id.* at 3272.
173. *Id.*
174. *See id.* (noting that one farm had two reports of outbreaks in 2013).
175. Real Raw Milk Facts, *Outbreaks from Foodborne Pathogens in Unpasteurized (Raw) Milk and Raw Milk Cheeses, United States 1998-Present*, http://www.realrawmilkfacts.com/PDFs/Raw-Dairy-Outbreak-Table.pdf (last updated Oct. 24, 2013). I selected this range because the authors were able to attribute all instances of outbreaks to either sales or herd shares. Prior to 2011, the authors did not consistently indicate whether the outbreaks occurred through sales or herd sharing.
176. *Id.*
177. *Id.*
testing, improved hygiene, refrigeration, and both research and standards developments operated to reduce the prevalence and virulence of milkborne disease outbreaks. In other words, while pasteurization may have played a role in reducing milkborne disease outbreaks, it only did so alongside other preventative measures taken by milk handlers. This is reminiscent of Dr. Coit’s argument in the early twentieth century that certification of the raw milk supply was necessary to ensure safety, whereas pasteurization would merely forgive poor sanitary practices among milk handlers since they knew that the milk would be pasteurized and thus presumably cured of any harm. In many ways, today’s raw milk advocates, especially shareholders, are the inheritors of Dr. Coit’s assertion that raw milk, produced under sanitary conditions, is healthy and safe to consume.

1. Reassessing the Risk Posed by Raw Milk

Not all epidemiologists agree that raw milk is as high-risk as U.S. public health officials warn. In recent studies, researchers using quantitative microbial risk assessments (QMRA)—the “gold standard” for testing microbial risks required by the United Nations—have found that raw milk is a low-risk food for the spread of _Listeria monocytogenes_, _Campylobacter_, _Staphylococcus aureus_, and _Escherichia coli_ 0157. Public health officials frequently warn the

179. _Id.; Claeys, supra_ note 46, at 252; _LeJeune, supra_ note 54, at 95.

180. _Mendelson, supra_ note 48, at 37.

181. _SCHMID, supra_ note 17, at 267 (noting that “responsibly handled raw milk rarely leads to genuine cases of food-borne illness.”); _Id._ at 51 (quoting Dr. Coit, “[w]e require approved and trustworthy dairymen, possessing honor, to conduct their dairies in conformity with a code of requirements, to establish a reliable safeguard against the common dangers of contaminated and impoverished milk.”).

182. _Ijaz, supra_ note 160, at 24 (citing Giacometti et al., _Quantitative Microbial Risk Assessment of Verocytotoxin-Producing Escherichia coli_ 0157 and Campylobacter jejuni _Related to Consumption of Raw Milk in a Province in Northern Italy_. 75(11) _J. FOOD PROTECTION_ 2031, 2031 (2012) (“The predicted probability of at least one [hemolytic uremic syndrome] case and one campylobacteriosis case per year may appear low, but when we consider the small geographical area investigated, the small volume of raw milk purchased (about 3,000 liters/day), and the estimated number of raw milk consumers (about 10,000 to 20,000), the low risk of illness linked to raw milk consumption becomes more apparent.”); _Latorre et al., Quantitative Risk Assessment of listeriosis Due to Consumption of Raw Milk_, 74(8) _J. FOOD PROTECTION_ 1268, 1275 (2011) (finding that “[i]n this RA model of listeriosis associated with consumption of raw milk, the probability of illnesses per raw milk serving was low, based on the classification criterion of 2003 FDA-FSIS risk assessment for _L. monocytogenes_ in ready-to-eat foods, where <1 predicted case of listeriosis per billion servings was considered low.”);
public that raw milk is responsible for the transmission of harmful bacteria and that raw milk should not be consumed under any circumstances.\textsuperscript{183} However, researchers applying QMRA models have shown that home-cooked chicken, hamburgers, and leafy greens may all possess a higher risk for the spread of foodborne illnesses.\textsuperscript{184} Moreover, one researcher argues that public health officials have “overextrapolated” from other types of risk assessment models to arrive at inappropriate conclusions that overstate raw milk’s risk.\textsuperscript{185} For example, some public health officials use a “comparative risk assessment” model that compares outbreaks of foodborne illnesses between raw milk and pasteurized milk.\textsuperscript{186} However, comparative risk assessment models do not describe the degree of inherent risk of a particular food; they merely show that one food may be safer than another.\textsuperscript{187} A QMRA model, on the other hand, demonstrates the: “(1) risk per consumer per serving; (2) rate of morbidity, hospitalization (severity), and mortality; (3) risks and rates for susceptible populations; [and] (4) significance of the risk (low, moderate, or high).”\textsuperscript{188} Under this analysis, raw milk appears much less risky than public health officials repeatedly proclaim it to otherwise be.

2. Raw Milk’s Medicinal Value

Not only is raw milk not as harmful as many public health officials claim, an ever-increasing body of scientific research indicates that raw milk consumption may have some proven medicinal value. Indeed, scientific studies recently published in peer-reviewed journals tend to support advocates’ claims that raw milk consumption can prevent the onset of asthma and at least some childhood allergies and

\textit{and} Heidinger et al., \textit{Quantitative Microbial Risk Assessment S. aureus and Staphylococcus enterotoxin in Raw Milk}, 88(8) J. FOOD PROTECTION 1219, 1219 (2009) (“Based on the 99.9th percentile cutoff frequently assumed to represent a reasonable risk, raw milk servings do not appear to pose a significant health risk from [staphylococcal enterotoxin A] intoxication.”).

\textsuperscript{183} Sheehan, \textit{supra} note 24, at 2.

\textsuperscript{184} Ijaz, \textit{supra} note 160, at 27-29.

\textsuperscript{185} \textit{Id.} at 35.

\textsuperscript{186} \textit{Id.} at 41, 42.

\textsuperscript{187} \textit{Id.} at 41.

\textsuperscript{188} \textit{Id.} at 42; \textit{see also} Gertjan Medema & Nicholas Ashbolt, \textit{QMRA: Its Value for Risk Management}, MICRORISK 10 (Apr. 2006), available at \url{http://www.camra.msu.edu/documents/QMRA_framework.pdf} (describing the typical process of a QMRA).
infections. For instance, a 2011 study of nearly 8,000 farm-raised children found that raw milk consumption prevented the development of asthma, atopy, and hay fever in children ages six through twelve at a greater rate than pasteurized milk in children of the same age group. Researchers speculate that the whey protein found in raw milk may contribute to its protective effect.

Researchers are learning what many raw milk drinkers have known for some time about raw milk—that raw milk provides real health benefits not found in pasteurized milk. For years, many consumers have anecdotally extolled raw milk for helping them overcome a range of diseases including osteoporosis, arthritis, digestive disorders such as Crohn’s disease, autism, eczema, and even cancer. Some claim that they can consume raw milk where lactose intolerance prevents them from consuming any other pasteurized dairy products. Interestingly, many of the testimonials report that the greatest benefit of consuming raw milk accrues to those very individuals whom public health officials warn against consuming raw milk at all: children, the elderly, and those with immunocompromised systems.

189. See Sheehan, supra note 24, at 3.


191. Id. at 766.


193. Id. at Testimonial 100.

194. Id. at Testimonial 43.

195. Id.

196. Id. at Testimonial 95.

197. Id. at Testimonial 42; but see Sarah Mummah et al., Effect of Raw Milk on Lactose Intolerance: A Randomized Controlled Pilot Study, 12(2) ANNALS FAM. MED. 134, 134 (2014) (finding no evidence to support the claim that consuming raw milk reduces the discomfort associated with consuming dairy products for those suffering from lactose intolerance); but see Kimberly Hartke, Stanford Study on Raw Milk Digestibility: Conflicting Interpretations, WESTON A. PRICE FOUND., Mar. 26, 2014 available at http://www.westonaprice.org/press/stanford-study-on-raw-milk-digestibility-conflicting-interpretations (arguing that, among other problems, the study size of sixteen individuals with lactose intolerance was too small considering that four hundred individuals were screened).

198. See generally Testimonials Written in Support of Family Farms Coop, supra note 192.
Despite the grave alarm with which public health officials treat raw milk, they can point to no reported deaths in the United States from consuming raw fluid milk for over twenty years. Moreover, raw milk is not capable of producing the outbreaks on the scale of those that have been associated with pasteurized milk where thousands, sometimes tens of thousands, of individuals become infected by a milkborne pathogen after consuming pasteurized milk. Indeed, with so few outbreaks resulting from raw milk consumption, researchers are increasingly labeling raw milk as a “low risk” food. And not only is raw milk a low risk, but researchers and consumers are now finding that raw milk may contain some medicinal benefits not otherwise found in pasteurized milk.

B. Herd Sharing May Reduce the Risk of Milkborne Disease Outbreaks

While raw milk may already be a low risk food, herd sharing for raw milk may reduce the risk of milkborne disease outbreaks even further. Indeed, herd sharing possesses characteristics that tend to reduce the risk that either the raw milk produced on the farm will become contaminated or, in the unlikely event of contamination, that any outbreak would affect a large number of people. First, farmers are directly accountable to their shareholders regarding the health of the cows and farm sanitation. Second, the smaller herd sizes associated with herd sharing tend to mitigate some of the risk associated with milk contamination. And third, herd sharing is limited only to those individuals who have the knowledge and the resources to seek out raw milk.

1. Herd Share Farmers are Accountable to Their Shareholders

Accountability is at the core of herd sharing. Unlike many other food production arrangements, shareholders and farmers interact regularly, often at the site of production, namely the farm.199 Consequently, herd share farmers have several incentives to maintain a high-level of sanitation and to use good agricultural practices200 when handling the cows and the milk. First, farmers are aware that their milk is not likely to ever be pasteurized since most shareholders

199. Katafiasz & Bartlett, supra note 19, at 126 (finding that 98.2% of shareholder respondents stated that they visited the farm where their raw milk was produced).

200. A few “good agricultural practices” for dairy farmers include clipping udder hair, frequent acid washes, automatic (rather than manual) cleaning of the bulk milk tank, and using a water purification system; all of these practices mitigate the likelihood of milk contamination on the farm. A.M. Elmoslemany et al., The Association Between Bulk Milk Analysis for Raw Milk Quality and On-Farm Management Practices, 95 Preventive Veterinary Med. 32, 37-40 (2010).
want the milk precisely because it is raw. Shareholders and their families will consume the milk in the raw state in which it leaves the farm. Presumably, if farmers know that their shareholders will not pasteurize the milk, then herd share farmers will act more cautiously in order to avoid either potential tort liability or breach of implied warranty. Indeed, the shareholders and the farmer are free to stipulate in their agreement the type of animal care and milk handling practices that the farmer will use. If the farmer fails to follow the stipulated practices, then that farmer may be in breach. Moreover, the farmer will want to take care not just to avoid being sued, but also to avoid losing shareholders for not following the agreement. Second, many shareholders regularly visit the farm to pick up their milk and for other reasons. Farmers will at least want to maintain appearances for the sake of their shareholders in order to avoid losing their business. Finally, the milk from a herd share is not co-mingled with milk from other farms, thus simplifying the traceback from the reported illness to the source in the unlikely event of a milkborne disease outbreak.

201. Adams, supra note 34, at 346 (“For the raw milk producer or vendor, raw milk sales are dripping with liability potential from a myriad of legal theories: negligence, negligence per se, strict products liability, defective design and warning, breach of express and implied warranties, and misrepresentation.”).

202. Katafiasz & Bartlett, supra note 19, at 126-127 (finding that almost all survey respondents (55 of 56) reported visiting the farm on which their milk was produced); see also The Ins and Outs of our Cow Share Program, Double O Farms, http://www.doubleofarmsky.com/cow-share-program (last visited Feb. 26, 2015) (“The owners in our program are integral in working with the farmer in making decisions about the care of the cows, their diet, and hygiene practices. An Annual Owners Inspection Open House is conducted that allows the owners to visit the farm and make recommendations for future enhancements and changes.”).

203. The Michigan Food Safety and Inspection Program policy permitting herd shares recognizes this fact. In addition to a signed contract, the policy also requires a “workable means of communication” between the farmers and the shareholders. Additionally, the policy requires that the milk “should be from a single farm and not co-mingled.” It further noted that, “[t]he workgroup felt comfortable with these decisions based on the fact that there is a defined consumer pool, rapid traceback is possible and the farmer and shareholder are both responsible for maintaining the quality of the milk.” Mich. Dep’t of Agric. and Rural Dev., Food Safety and Inspection Program, Policy #1.40 (Mar. 12, 2013).
2. Smaller Herd Sizes

Herd share dairy farms are less likely to be the source of a foodborne disease outbreak in part because herd shares involve significantly fewer cows than most modern dairy farms.204 Indeed, researchers have found that cows in larger herds tend to have higher bacteriological counts that in turn lead to a higher incidence of foodborne disease outbreaks.205 The higher counts in larger herds are likely the result of unsanitary production practices, such as indoor confinement,206 a practice that is unlikely to occur in a herd share.207

While no data exists showing the average number of cows per herd share, the number of cows per herd share will likely be limited by several factors: the number of individuals and families willing to become shareholders, the amount of milk a shareholder is capable of consuming, the amount of milk produced by the cows on a daily basis, and the capacity of the farm to accommodate a large herd. For example, a Jersey cow can produce up to six gallons of milk per day.208 Assuming the farmer keeps at least a gallon of milk per day for her own personal consumption, the farmer is left with thirty-five gallons of milk per week for her shareholders. If the herd share agreement allows each shareholder to take up to one gallon of milk per week, and each shareholder only owns one share in the herd, then the herd share can accommodate thirty-five shareholders taking one gallon of milk per week from a single cow. If only 200 individuals are interested in becoming owners of a single share in the herd, the farmer may need no more than five Jersey cows. This model of dairy farming differs considerably from the conventional dairy industry whose fastest growing segment is the large-scale dairy farm with at least 2,000 cows.209 Between 2001 and 2009, the number of dairy farms with


205. Elmoslemany et al., supra note 164, at 33, 39 (2010).

206. Id.

207. See generally Testimonials Written in Support of Family Farms Coop, supra note 192 (noting that many shareholders consume raw milk from the Family Farms Coop herd share because the cows are “grass-fed,” a sign that cows spend much of their time outdoors on pasture eating grass).


209. U.S. DEPT. OF AGRIC, supra note 204.
2,000 cows or more jumped 128 percent from 325 to 740.210 Today, farms with as many as 30,000 cows are not unusual.211 Needless to say, a herd share operation is highly unlikely to exceed a few dozen cows, thus making it more likely to have reduced bacteriological counts assuming the farmer follows best agricultural practices.

3. Shareholders are Sophisticated Consumers

It takes a certain kind of person to become a shareholder. Shareholders must invest significantly more money and time into procuring raw milk than the average pasteurized milk drinker who can pay as little as $3.89 for a gallon of milk at the gas station around the corner in many cities across the United States.212 Since herd shares require a “sophisticated consumer”—in other words, a consumer that has the time, money, and desire to seek out raw milk—the total number of shareholders in any given herd share will be limited. This makes the herd share small in size, thus further restricting the size and impact of any milkborne disease outbreak from the herd share farm. To be sure, the amount of time a consumer invests in researching a food product or beverage does not make that item any safer to consume than it would otherwise be had the consumer not done any research at all. The same is true for raw milk. However, the degree of deliberation that many raw milk drinkers tend to engage in before consuming raw milk indicates that the decision to drink raw milk is not made casually. For many consumers, the decision to drink raw milk is complex because the decision is informed by a number of moral, ethical, and medical factors.213 Raw milk drinkers do not just want any raw milk; instead, they want raw milk that is produced under certain conditions that tend to promote their value system and their personal health.214 The raw milk consumer or shareholder is

210. Id. at 5.


213. See generally Testimonials from Members of the Family Farms Cooperative, supra note 192 (In 2006, Michigan authorities seized over 400 gallons of raw milk from a herd share farmer while in transit to his distribution site as part of a wider sting operation against the herd share. Following the advice of a lawyer-friend, the farmer collected over 100 testimonials from his shareholders about why they chose to drink raw milk and submitted them to the prosecutor handling the farmer’s case. See DAVID GUMPERT, THE RAW MILK REVOLUTION 8-11, 83-85 (2009)).

214. See, e.g., id. at comment 29.
likely to expect the farmer to use certain production practices and housing conditions that tend to reduce the risk of contamination of milk. Thus, although a sophisticated consumer does not make the product safer to consume, a sophisticated consumer rather than a lay consumer may be more likely to make safer choices about his or her source of raw milk.

Sophisticated consumers tend to possess two characteristics that influence their ability to obtain raw milk: a high level of education and a professional career.\textsuperscript{215} Both of these characteristics provide raw milk drinkers (especially shareholders) with the time and the money necessary to 1) educate themselves about raw milk generally; 2) visit the farm to negotiate the herd share agreement with the farmer and to observe the farming environment and the animal’s welfare; 3) return to the farm at regular intervals to pick up the milk; and 4) pay increased costs for both the bill of sale and boarding agreement well above the costs that consumers pay for pasteurized milk.\textsuperscript{216} Only a small number of individuals are likely to meet all four factors. This has the effect of further minimizing the number of people involved in a herd share thus limiting the overall number of people that could be exposed to a milkborne illness in the unlikely event one were to occur.

Multiple surveys have found that both raw milk drinkers and shareholders have a college degree or higher.\textsuperscript{217} In one study, raw milk drinkers were found to have a significantly higher degree of education than their pasteurized milk-drinking peers.\textsuperscript{218} Consumers with a high degree of education are more likely to conduct a cost-benefit analysis prior to consuming raw milk.\textsuperscript{219} Indeed, many raw milk consumers


\textsuperscript{216.} Castronova-Brooks, \textit{supra} note 215, at 8.

\textsuperscript{217.} Katafiasz & Bartlett, \textit{supra} note 19, at 127; Bell, \textit{supra} note 215.

\textsuperscript{218.} Castronova-Brooks, \textit{supra} note 215 at 8, 13 (finding that 90% of participants consuming raw milk had a college degree or higher).

\textsuperscript{219.} Castronova-Brooks, \textit{supra} note 215 at 9 (finding that the raw milk group had a higher ratio of individuals who have been exposed to foodborne illnesses than the pasteurized milk group. Nevertheless, the former group still consumed raw milk implying that “their perceived benefits of consuming this product outweigh the costs, or risk of illness.”).
have determined that raw milk’s potential health benefits outweigh any risk in consumption. Moreover, a significant number of shareholders are less likely to “trust the recommendations made by state health officials regarding which foods are safe to eat.” Instead, raw milk drinkers are more likely to consider the potential health benefits of consuming raw milk. In one survey of raw milk drinkers, nine out of twelve participants linked their consumption of raw milk to “personal or family health issues.” Another study found that 91 percent of shareholders drank raw milk in part because they believed that it was healthier than pasteurized milk.

Some consumers turn to raw milk because they do not believe that “processed milk” is safe or healthy. Indeed, many consumers, not just raw milk drinkers, are increasingly rejecting pasteurized milk. While the USDA recommends that American adults consume at least two cups of milk per day, Americans today are instead drinking an average of .61 cups per day, down from .96 cups per day in 1970. Some consumers may be rejecting milk in part because of concerns regarding rBGH (bovine growth hormone), antibiotics in

220. Katafiasz & Bartlett, supra note 19, at 127; see generally Testimonials from Members of the Family Farms Cooperative, supra note 192.
221. Katafiasz & Bartlett, supra note 19, at 126.
222. Bell, supra note 215, at (finding that some of the illnesses that the participants noted included psoriasis, allergies, intestinal diseases, digestive problems, and nervous system diseases); but see U.S. FOOD & DRUG ADMIN., supra note 25 (noting that the scientific literature does not support the claims of raw milk’s alleged health benefits).
223. Katafiasz & Bartlett, supra note 19, at 127 (reporting that 83.9% of respondents reported that raw milk “helped/prevented” digestive problems, 69.3% of respondents reported that raw milk “helped/prevented,” and 64.3% of respondents reported that raw milk “helped/prevented” intestinal diseases).
224. Id. at 127.
225. Ian Berry & Kelsey Gee, America’s Milk Business in a ‘Crisis,’ WALL ST. J., Dec. 11, 2012 http://www.wsj.com/articles/SB1000142412788732331680457816503947704328 (finding that the availability of milk alternatives (such as soy and almond milk) and the increased price of milk have combined to decrease sales of milk among Americans); see generally Hayden Stewart et al., Why Are Americans Consuming Less Fluid Milk? A Look at Generational Differences in Intake Frequency, in USDA ECON. RESEARCH SERV. REPORT 149 (May 2013), http://www.ers.usda.gov/media/1118789/err149.pdf.
226. Id. at 1.
227. See DuPuis, supra note 6, at 285.
“Don’t Have a Cow, Man!”: Recognizing Herd Share Agreements for Raw Milk

milk, and the ubiquity of genetically modified organisms in grain commonly fed to dairy cows. While government and public health officials deny that rBGH and GMOs are harmful to human health, officials are nevertheless taking steps to reduce the amount of antibiotics found in milk. Some consumers may also be rejecting conventional milk because they are concerned about the welfare of animals and the harmful environmental impacts of confined animal feedlot operations (CAFOs) where a large amount of conventional fluid milk is produced in the United States.

Participation in a herd share is further limited by requiring the shareholders to invest more time and money into acquiring milk than they would were they to simply purchase pasteurized milk from the grocery store. The agreement requires shareholders to pay more for their share of the herd than they would pay for grocery store milk. Shareholders must pay in full for both their share in the herd and the monthly boarding fee even if they do not pick up the amount of milk to which they are entitled because the farmer must still care for the shareholder’s animals. Consequently, for some consumers, it may be more convenient to purchase another pasteurized milk product from the store (such as organic milk or non-homogenized milk) or to simply not purchase milk at all rather than participate in a herd share. And raw milk costs more. Farmers that produce raw milk for sale to the final consumer generally charge two to three times as much for a gallon of raw milk than it would cost the consumer to purchase


229. Veronique Dupont, GMO Corn, Soybeans Dominate US market, PHYS.ORG (June 4, 2013), http://phys.org/news/2013-06-gmo-corn-soybeans-dominate.html (finding that 88% of all corn and 94% of all soy grown in the United States is genetically modified); see generally Testimonials from the Members of the Family Farm Cooperative, supra note 192.

230. Neuman, supra note, at 228.

231. U.S. DEPT. OF AGRIC. supra note 209, at 2 (finding that dairy farms with 2,000 cows, while amounting to only 1% of all dairy farms in the United States, account for 31% of all milk produced in the country); see generally UNION OF CONCERNED SCIENTISTS, CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations 13-14 (2008), http://www.ucsusa.org/assets/documents/food_and_ agriculture/cafos-uncovered.pdf.

232. See, e.g. AM. JUR. LEGAL FORMS 2d § 20:55, Share Sale and Boarding Agreement (2013) § 1, 2.

233. Little, supra note 97.
pasteurized milk in the grocery store. In a herd share, the higher price for raw milk will likely be reflected in the boarding fee.

Shareholders must also invest a significant amount of time into the herd share each week by driving to the farm to pick up their milk. While shareholders visit the farm at least once to meet with the farmer, tour the farm, or sign the herd share agreement, they must also regularly return to the farm as many as four times per month to pick up their milk. For one herd share, the average trip to pick up the raw milk was over twenty-four miles. Traveling not only increases the amount of time the shareholder must invest in obtaining the milk, but it will also increase the participation costs for the shareholder.

Clearly, herd sharing is not practical for most consumers because most consumers will not pay over twice as much for a gallon of raw milk, nor will they want to drive over twenty miles to get their milk. Fewer shareholders reduce the number of people who could potentially become ill from any milkborne disease outbreak in the unlikely event one were to occur. Additionally, discussion and negotiation over the herd share agreement promotes a high degree of accountability between the farmer and the shareholders thus ensuring a higher standard of animal care and milk sanitation.

C. Herd Sharing is Nothing New

While attempting to resolve a very modern problem, a properly written herd share agreement has its roots in the medieval English


235. Katafiasz & Bartlett, supra note 19, at 126 (finding that 98.2% of respondents reported visiting the farm on which their milk was produced).

236. Id. at 126.

237. See The Menace of Moo-Shine, ECONOMIST (Jun. 1, 2013), http://www.economist.com/news/united-states/21578663-saving-america-raw-milk-menace-moo-shine (describing herd sharing as an arrangement where the farmer sells shares of the herd to individuals and gives the raw milk to the shareholders for an additional fee. The author goes on to note that, “If not the land of the free, America is certainly the land of the ingenious lawyer.”). For another commentator’s take on herd sharing, see Falkenstein, supra note 20 (“Truly, to call a cow share
common law of agistment and is related to a number of other modern-day animal sharing arrangements common in agricultural communities across the United States. Historically, agistment has been defined as the “feeding or keeping of sheep, or any kind of cattle.” In more recent times, agistment is considered to be a “a type of bailment in which a person, for a fee, allows animals to graze on his or her pasture.” An agister, or the holder of the livestock, “assumes full control of the animals’ well-being during the term of the contract.” This is considered a bailment because the agister is expected to return the animals in the same condition as he received them at the expiration of the contract. For a practice that may reach as far back as the early fourteenth century, cases of bailment over livestock are still heard in courts across the United States.

agreement a species of legal maneuvering may be giving too much credit to an effort that is designed either to flout the law entirely, or at the very least avoid the often stringent requirements associated with licensure. In reality, cow shares are poorly disguised attempts to accomplish something that is, in most states, patently criminal.

Still, another commentator believes that the heyday of the herd share is at its end. See Jason Foscolo, Federal Judge: Raw Milk Cow Shares “Merely a Subterfuge” for Direct Sale, FOOD LAW FIRM (Feb. 15, 2012), http://www.foodlawfirm.com/2012/02/federal-judge-raw-milk-cow-shares-merely-a-subterfuge-for-direct-sale.

238. See Bosworth v. Limbrick, et al., M. 18 Geo. III. A.D. 1777 (reprinted in A COLLECTION OF DECRESSES BY THE COURT OF THE EXCHEQUER IN TITHE-CAUSES FROM THE USURPATION TO THE PRESENT TIME 28 (Hutton Wood ed., 1799) (finding that the parson was entitled to one-tenth (tithe) of the milk produced on lands belonging to the parish); see also Affidavit of Pete Kennedy in Support of Plaintiff’s Opposition to Defendant’s Motion for Summary Judgment at ¶¶26-36, Slippy, No. EQCV067968 (Iowa Case Law) (on file with author).

239. THO. BATEMAN, A TREATISE ON THE AGISTMENT TITHE, IN WHICH THE NATURE, RIGHT, OBJECTS, MODE OF PAYMENT, AND METHOD OF ASCERTAINING THE VALUE OF EACH SPECIES OF IT, ARE FULLY STATED AND EXPLAINED (1775).

240. BLACK’S LAW DICTIONARY 77 (9th ed. 2009).


242. Id.


244. Bouley, supra note 241, at 1032 (noting that while cases are still tried, they are conspicuously few considering how many bailments there are in cattle country).
1. Shared Ownership Arrangements for Livestock Operations Today

Indeed, the shared ownership of livestock is not just a thing of the past. Shared ownership of livestock is a common practice across the United States and even today, multiple owners frequently share in the profit (or loss) or products particular to the animal through syndicate agreements, bull and stallion leases, and cow leases. Individuals enter into these types of agreements because they may want a particular benefit such as a coveted sire, the winnings of a racehorse, or much needed capital, but cannot alone afford the cost of maintaining the horse or cow. For instance, in a syndicate agreement, multiple owners invest in a stallion thus entitling an owner, or shareholder, to breed the stallion to one of the shareholder’s mares once per year. In a bull lease, the owner leases a bull valued for its particular bloodline for cash to lessees during the breeding season. At other times of year, the bull remains with the lessor. Cow leases (sometimes called “cow shares” but not to be confused with the subject of this Note) permit a cow-calf producer (a farmer who raises calves for the first year of their lives) to share in the risk and profit of raising calves with an owner who invests much-needed capital into the farm but leaves the day-to-day management of the herd to the farmer.

Viewed in the context of other shared-ownership arrangements for livestock, herd sharing appears to be less a circumvention of the law and more a continuation of a well-established tradition in agricultural circles. The similarities between herd sharing and other shared ownership arrangements of livestock are striking. For instance, the raw milk farmer, as an “agister,” boards the cows and is responsible


248. Id. at 7.

249. Id. at 10; see also James Oltjen et al., Beef Cow Share Lease Arrangements RANCH BUSINESS MGMT., 1996, at 113, available at http://ag.arizona.edu/arec/pubs/rmg/6%20ranchbusinessmanagement/5 3%20beefcowsharelease96.pdf.
for the cows on behalf of the shareholders. However, instead of transferring the cows to the shareholders at a stipulated time as in an agistment agreement, the farmer transfers the product particular to the herd, namely the milk, much in the same way that the manager of a race-horse transfers the winnings to the syndicate owners or a bull handler turns over the bull to breed with a lessor’s heifers. And since the shareholders of a herd have a stake in the herd and not the milk of the herd, then it is also possible that the shareholders could bargain for a portion of meat from the cow should it ever be slaughtered or for a share of the sale price of the cow or even the winnings from a dairy show.

Parties also enter into arrangements for the shared ownership of livestock because individual ownership of some livestock can be cost-prohibitive. It is not possible for every horse breeder to own a prize-winning racehorse. Nor is it practical for every cattleman to keep a bull on his farm. Farmers enter into shared ownership arrangements for certain livestock in order to defray the cost and risk of individually owning the cow or horse. Likewise, it is not practical or possible for every person who wants raw milk to own a cow and for that person to be solely responsible for the care and maintenance of the cow. While it is perfectly legal for any person to purchase and keep a cow (notwithstanding zoning ordinances to the contrary in nonagricultural districts), most people do not have the time, the money, or the land to care for a “family cow.” And even if a person did have those resources available, that person is unlikely to consume all of the milk produced by the cow. Thus, herd sharing makes sense because it allows for a group of people to pool their resources together to become the shared owners of a cow or a herd of cows. Thus, shared ownership is merely substituted for where the legal, individual ownership of a cow or a herd is not possible or practical.

2. Properly Drafted Herd Share Agreements

While grounded in a long-standing tradition of shared-ownership for livestock, herd share agreements must be properly drafted. It is not enough to assume the validity of herd share agreements under various legal theories as some herd share advocates do because some courts may conduct searching reviews of herd share agreements looking for perceived deficiencies. Numerous herd share agreements

250. See, e.g., Cowshare Programs Brochure, WESTON A. PRICE FOUND. CAMPAIGN FOR REAL MILK (Oct. 17, 2013), http://www.realmilk.com/brochures/cowshare-brochure (claiming that “[herd share agreements] are legal and valid, as guaranteed by the Constitution of the United States of America.” The website does not alert the reader to the part of the U.S. Constitution that guarantees the validity of herd share agreements.).
circulate on the internet\textsuperscript{251} and many of them appear to be boilerplate agreements. Some state agencies even encourage herd share parties to use the internet to find a sample agreement.\textsuperscript{252} However, farmers and shareholders would be better served if they crafted their agreements in such a way as to: 1) include dividends incidental to ownership in addition to milk, 2) clarify that the shareholder shares some of the risk of loss in the value of the herd, and 3) avoid linking any payments to the receipt of raw milk.

Herd share agreements must provide the shareholder with dividends other than milk from the cow. Indeed, in \textit{Slippy}, the Iowa Court rejected the herd share agreement at issue because it found that the agreement entitled the shareholder to no benefit other than raw milk.\textsuperscript{253} Where the agreement appears to stand for little more than a transaction for raw milk as opposed to a transaction for an ownership share in a herd of cows, a court is more likely to reject the herd share agreement.\textsuperscript{254} While it may be unavoidable that a shareholder’s primary interest in owning a share of a herd may be to obtain raw milk, the agreement can still be for more than the exchange of raw milk. Dairy cows offer multiple opportunities for returns on investment beyond the milk they produce. For one, a cow can be sold. The cash from the sale can be divided up among the shareholders according to the portion of the cow that they own. Second, cows can also be slaughtered for meat. Again, the meat from the slaughter can be divided proportionately among the shareholders according to their share in the herd. Finally, some farmers show cows at county and state fairs and occasionally they win prizes. As with the other proceeds, the shareholders can also proportionately divide the winnings among themselves. While some of these dividends may seem incidental in comparison to the shareholders regular acquisition of milk, they nevertheless convey a more complete picture of the ownership of a herd of cows.

\begin{itemize}
\item \textsuperscript{252} Letter from Robert Gerlach, State Veterinarian of Alaska to Interested Party (May 12, 2010), \textit{available at http://dnr.alaska.gov/ag/FMM/028AppZDECRawMilkFactSheet.pdf}.
\item \textsuperscript{253} Slippy v. Northey, Case No. EQCV067968 at 15 (Linn County Dis. Ct., Iowa Jan. 26, 2012).
\item \textsuperscript{254} \textit{See, e.g., Kenley v. Solem, 375 S.E.2d 532, 533 (Va. App. 1989)}. 
\end{itemize}
A herd share agreement must provide that the shareholder absorbs the risk of loss inherent in ownership and not just the gain (i.e., the milk). Concomitant with an investor’s expected potential gain in value is a potential risk in the loss of value from an asset. For instance, the Iowa Court faulted the agreement at issue because it found that the shareholder was not “obligated for any losses incurred.”255 Some agreements do include a brief section concerning “risk of loss.”256 While this may be sufficient, the parties could further describe what precisely the shareholder risks losing. Clearly, it is their purchase price of their share. Additionally, the shareholder loses out on receiving any dividends from that particular cow. And finally, shareholders may have to pay to replace that particular cow. Some type of statement establishing additional responsibilities for the shareholder in the event of a loss in the herd will help show a court that the shareholder is the owner of the cow or herd.

Herd share parties should de-link payment of the boarding fee from the receipt of milk. Indeed, in Kenley v. Solem, the Virginia Supreme Court struck down the agreement in part because the shareholders paid a three dollar maintenance fee each time they picked up milk from the farm.257 However, the Ohio court in Schmitmeyer v. Ohio Department of Agriculture was not bothered that the shareholders paid a six dollar boarding fee to the farmer each time they collected their raw milk.258 The Court refused to recognize the agreement as a circumvention of the law because the Court believed that the Department of Agriculture’s inconsistent enforcement of its raw milk ban carried greater weight than the evidence of any sham agreement.259 The court’s holding notwithstanding, farmers and shareholders should not rely on Schmitmeyer. Instead, they should follow many of the agreements already available by both de-linking payment of the boarding fee from the receipt of raw milk and requiring that the shareholder either mail a monthly check or use an electronic payment method to pay the farmer his boarding fee.260

255. Slippy, No. EQCV067968 at *15.

256. 2A AM. JUR. LEGAL FORMS 2d § 20:55, Share Sale and Boarding Agreement (2013) (stating merely that “risk of loss concerning the cow sold under this agreement will pass from Seller to Buyer upon the signing of this agreement.”).

257. See, e.g., Kenley, 375 S.E.2d at 533.

258. Schmitmeyer, No. 06-CV-63277, at 2.

259. Id. at 9.

Courts may be more inclined to uphold herd share agreements if farmers and shareholders make the foregoing changes to their agreements. However, courts should not uphold herd share agreements simply because the parties made a few minor modifications to their agreement; rather, courts must also recognize that herd sharing is a type of shared-ownership arrangement for livestock common in agricultural communities across the United States and well rooted in the English common law tradition of agistment.

**Conclusion**

In spite of public health officials’ dire warnings, consuming raw milk is not nearly as risky as they assert. An increasing body of evidence tends to support the classification of safely produced raw milk as a low-risk food. And for whatever risk may remain in consuming raw milk, certain characteristics of herd sharing limit the likelihood of milkborne disease outbreaks. Nor is herd sharing a novel creation of the “ingenious lawyer;” rather, it is a well-established practice, deeply rooted in the tradition of arrangements for the shared ownership of livestock. Courts and legislatures ought to reconsider past negative treatment of herd sharing, and recognize that it represents a safe model through which a few willing and knowledgeable individuals can obtain raw milk.

**Appendix A**

<table>
<thead>
<tr>
<th>Herd Shares Permitted (7)</th>
<th>Alaska,\textsuperscript{261} Colorado,\textsuperscript{262} Idaho,\textsuperscript{263} Michigan,\textsuperscript{264} North Dakota,\textsuperscript{265} Tennessee,\textsuperscript{266} and Wyoming.\textsuperscript{267}</th>
</tr>
</thead>
</table>

\textsuperscript{261} Alaska Admin. Code tit. 18 § 32.020(c) (2013) (“The provisions of 18 AAC 32.010 - 18 AAC 32.060 do not apply to a person who owns a cow, goat, or sheep and uses the milk from the animal for that person’s personal use.”).

\textsuperscript{262} Colo. Rev. Stat. § 25-5.5-117 (1) (2013) (permitting the acquisition of raw milk by consumers that meets the statutory requirements for a herd share).

\textsuperscript{263} Idaho Admin. Code r. 02.04.13.040 (2013) (permitting the operation of herd share programs).

\textsuperscript{264} Michigan Dep’t, supra note 203 (permitting herd shares that include a dated written contract and a “workable means of communication between the farmer and all of the households receiving the milk.”).

\textsuperscript{265} N.D. Cent. Code Ann. § 4-30-41.4 (West 2013) (“It is not a violation of this chapter to transfer or obtain raw milk under a shared animal ownership agreement.”).
"Don’t Have a Cow, Man!": Recognizing Herd Share Agreements for Raw Milk

<table>
<thead>
<tr>
<th>Herd Shares Prohibited (6)</th>
<th>Herd Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida, 268 Louisiana, 269 Maryland, 270 North Carolina, 271 Utah, 272 and West Virginia. 273</td>
<td>Indiana 274</td>
</tr>
</tbody>
</table>

266. TENN. CODE ANN. § 53-3-119 ("Nothing in this part or any other law shall be construed as prohibiting the independent or partial owner of any hoofed mammal from using the animal for the owner’s personal consumption or other personal use.").

267. 010.100-003 WYO. CODE R. § 8 (g)(i) (2013) (prohibiting the sale of unpasteurized milk for human consumption except for “individuals who obtain milk from animals owned by them, members of their family, or their employer and who furnish raw milk or products made from raw milk only to members of their family or non-paying guests.").

268. FLA. ADMIN. CODE ANN. r. 5D-1.001, F.A.C. (2)(l) (2013) (adopting the PMO in full and further defining “sold” to mean “a transfer of milk or milk products that involves any direct or indirect for of compensation in exchange for the right to acquire such milk or milk products.").

269. LA. ADMIN. CODE tit. 51, pt. VII, § 323 (E) (2013) (prohibiting the “sale, exchange or otherwise providing [including bartering, selling stock in dairy cows in exchange for raw milk, exchanging raw milk in return of animal feed or the cost of animal feed and any other such type arrangement (regardless if there is an actual sale)] of raw milk or dairy products made from milk . . . for human or animal consumption . . . EXCEPTION: This shall not be interpreted to prohibit a farmer from providing raw milk for his/her own animal on his/her own farm.").

270. MD. CODE REGS. 10.15.06.02(29) (2013) (prohibiting the sale of raw milk and defining sale to mean “a transaction that involves the transfer or dispensing of milk or milk products or the right to acquire milk or milk products through barter or contractual arrangement or in exchange for any other form of consideration including, but not limited to, an agistment agreement, which is the sale of shares or interest in a cow.").

271. N.C. GEN. STAT. ANN. § 106-266.35 (West 2013) (prohibiting the sale of raw milk for human consumption, but permitting the sale of raw milk “dispensed as animal feed;” expressly prohibiting herd shares).

272. UTAH CODE ANN. § 4-3-14 (2) (West 2013) (permitting on the farm sale of raw milk); but see id. § 4-3-10 (16) (making it unlawful to “own, operate, organize, or otherwise participate in a cow-share program where the milk producing hoofed mammal is located in Utah.").

273. W. VA. CODE R. § 64-34-2 (2.1.i.1) (2013) (“The practice of selling shares or other interests in dairy animals as a means of providing unpasteurized milk to the final consumer is prohibited. The practice of selling raw milk as pet food, as a means of providing unpasteurized milk to the final consumer, is prohibited.").

274. IND. CODE ANN. § 15-18-1-21 (a) (West 2013) (“A person may not offer, display for sale, sell, deliver, or have possession of with intent to sell or deliver milk or milk products for human consumption unless every particle of the final mixture of the milk . . . used in processing or manufacture has been thoroughly pasteurized."). But see INDIANA STATE BD. OF ANIMAL HEALTH, supra note 105.
“Don’t Have a Cow, Man!”: Recognizing Herd Share Agreements for Raw Milk


| ARK. CODE ANN. § 20-59-248(a)(1) (West 2013) (permitting the “incidental” sale of raw milk from the farm where the amount of milk sold does not exceed 500 gallons in a single month).
| CAL. FOOD & AGRIC. CODE § 35891 (West 2013) (permitting the sale of Grade A raw milk that meets the standards for “market milk”).
| CONN. GEN. STAT. ANN. § 22-173a(a) (West 2013) (permitting the sale of raw milk that meets the statutory requirements).
| 410 ILL. COMP. STAT. 635/8 (2013) (permitting the sale of raw milk from farms that meet the statutory requirements).
| ME. REV. STAT. ANN. tit. 7, § 2902-B(1) (2013) (permitting the sale of raw milk so long as the label on the container “contains the words ‘not pasteurized.’”).
| MASS. GEN. LAWS ANN. ch. 94, § 16J (West 2013) (granting authority to the boards of health of cities and towns to determine whether to allow the sale of raw milk within their jurisdiction).
| MINN. STAT. ANN. § 32.393 (1) (WEST 2013) (permitting the sale of raw milk when it is “occasionally secured or purchased for personal use by any consumer at the place or farm where the milk is produced.”).
| MISS. CODE ANN. § 75-31-65 (3) (West 2013) (prohibiting the sale of raw milk except for “incidental sales of raw goat milk” under certain conditions).
| MO. ANN. STAT. § 196.935 (West 2013) (permitting an individual to “purchase and have delivered to him for his own use raw milk or cream from a farm.”).
| NEB. REV. STAT. ANN. § 2-3969(3) (West 2013) (“Milk and cream produced by farmers exclusively for sale at the farm directly to customers for consumption and not for resale shall be exempt from the Nebraska Milk Act.”).
| NEV. ADMIN. CODE § 584.2031 (1) (2013) (permitting the sale of raw milk upon the establishment of a county milk commission that has certified the dairy and an inspection by the State Dairy Commission).
<table>
<thead>
<tr>
<th>Sales Permitted (Continued)</th>
<th>York,\textsuperscript{290} Oklahoma,\textsuperscript{291} Oregon,\textsuperscript{292} Pennsylvania,\textsuperscript{293} South Carolina,\textsuperscript{294} South Dakota,\textsuperscript{295} Texas,\textsuperscript{296} Vermont,\textsuperscript{297} Washington,\textsuperscript{298} and Wisconsin.\textsuperscript{299}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only PMO Language (9)</td>
<td>Alabama,\textsuperscript{300} Delaware,\textsuperscript{301} Georgia,\textsuperscript{302} Hawaii,\textsuperscript{303} Iowa,\textsuperscript{304} Montana,\textsuperscript{305} New Jersey,\textsuperscript{306} Ohio,\textsuperscript{307} and Virginia.\textsuperscript{308}</td>
</tr>
</tbody>
</table>

291. OKLA. STAT. ANN. tit. 2, § 7-414 (A)(1) (West 2013) (permitting “incidental sales of raw milk directly to consumers at the farm where the milk is produced.”).
292. OR. REV. STAT. ANN. § 621.012 (West 2013) (permitting the on-farm sale of raw milk from three or fewer cows that have calved at least once and nine or fewer goats or sheep that have lactated at least once).
293. 7 PA CONS. STAT. ANN. §59a.401 (West 2013) (permitting the sale of raw milk).
296. 25 TEX. ADMIN. CODE § 217.32 (2013) (permitting the on-farm sale of Grade A raw milk).
297. VT. STAT. ANN. tit. 6, § 2777 (b) (West 2013) (permitting the sale of unpasteurized milk from the farm where it was produced).
298. WASH. REV. CODE ANN. § 15.36.021 (4) (West 2013) (permitting the sale of raw milk subject to “stringent” regulations).
299. WIS. STAT. ANN. § 97.24 (2)(d) (West 2013) (permitting the “incidental sales of milk directly to consumers at the dairy farm where the milk is produced.”); \textit{but see} In the Matter of Milk Producer License Number 85297 & License Number 14958, 01-C-62, 01-C-96, & 02-C-07 (WI DEP’T AGRIC., TRADE & CONSUMER PROT. 2002) (ALJ decision effectively prohibiting herd sharing).
300. ALA. ADMIN. CODE r. 420-3-16-.12 (2013) (“only Grade A pasteurized . . . milk . . . shall be sold to the final consumer.”).
301. 16 DEL. ADMIN. CODE § 4461-1.0 (2013) (adopting the PMO which prohibits the sale of unpasteurized milk to the final consumer).
302. GA. COMP. R. & REGS. 40-2-1-.01(a) (2013) (“It shall be unlawful to sell, offer for sale, or otherwise dispense raw or unpasteurized milk.”).
303. HAW. CODE R. § 11-15-46 (LexisNexis 2013) (“Only Grade ‘A’ pasteurized milk . . . shall be sold to the final consumer.”).
304. IOWA CODE ANN. § 192.103 (West 2013) (“Only grade ‘A’ pasteurized milk . . . shall be sold to the final consumer.”).
Other (2) | Kentucky\textsuperscript{309} and Rhode Island\textsuperscript{310}

APPENDIX B

<table>
<thead>
<tr>
<th>State</th>
<th>No. of Herd Shares\textsuperscript{311}</th>
<th>Raw Milk Farms?\textsuperscript{312}</th>
<th>Summary of State’s Position on Raw Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>1</td>
<td>Yes</td>
<td>Sale prohibited</td>
</tr>
<tr>
<td>Alaska</td>
<td>6</td>
<td>Yes</td>
<td>Herd shares permitted</td>
</tr>
<tr>
<td>Arizona</td>
<td>1</td>
<td>Yes</td>
<td>Sale permitted</td>
</tr>
</tbody>
</table>

305. MONT. ADMIN. R. 32.8.103 (1) (102) (2013) (prohibiting the sale of raw milk to the final consumer); and id. 32.8.103(1)(103) (“No retail raw milk dairies will be licensed to sell grade A raw milk for public consumption.”).


307. OHIO REV. CODE ANN. § 917.04 (West 2013) (“No raw milk retailer shall sell, offer for sale, or expose for sale raw milk to the ultimate consumer.”).

308. 2 VA ADMIN. CODE § 5-490-75 (2013) (“No person may offer to sell or sell, barter, trade, or accept any goods or services in exchange for unpasteurized milk if the unpasteurized milk is intended for human consumption.”).

309. KY. REV. STAT. ANN. § 217C.090 (West 2013) (permitting the sale of raw goat milk “upon written recommendation of a physician”); but see 902 KY. ADMIN. REGS. 50:110 § 1 (2013) (adopting the PMO which prohibits the sale of raw milk to the final consumer).

310. R.I. GEN. LAWS ANN. 1956, § 21-2-2 (8) (West 2013) (requiring all milk to be pasteurized, but permitting “a physician [to] authorize an individual sale of goat milk directly from producer to consumer by written, signed prescription.”).

311. The numbers are taken from the Weston A. Price Foundation (WAPF) Campaign for Real Milk Finder webpage. WAPF is the primary proponent of raw milk consumption and herd shares in the United States and it is probable that most of the individuals who operate herd shares will advertise on their webpage. However, it is also probable that some herd share operators have chosen not to list their farm on WAPF’s webpage or that some postings are outdated. I simply clicked on each state and searched for the term “share” and counted the number of times the term appeared in the context of a herd share, cow share, or goat share. Weston A. Price Found., Real Milk Finder (last updated Feb. 1, 2015) http://www.realmilk.com/real-milk-finder.

312. In addition to listing herd shares, WAPF also lists the contact information for farms offering raw milk for sale.
"Don’t Have a Cow, Man!": Recognizing Herd Share Agreements for Raw Milk

<table>
<thead>
<tr>
<th>State</th>
<th>Herb Shares Permitted</th>
<th>Milk Sale Permitted</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>Arkansas</td>
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<td>Yes</td>
<td>On-farm sale permitted</td>
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<tr>
<td>California</td>
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<tr>
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<tr>
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<td>0</td>
<td>Yes</td>
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</tr>
<tr>
<td>Delaware</td>
<td>0</td>
<td>No</td>
<td>Sale prohibited</td>
</tr>
<tr>
<td>Florida</td>
<td>0</td>
<td>Yes</td>
<td>Sale and herd shares prohibited; available as animal feed</td>
</tr>
<tr>
<td>Georgia</td>
<td>2</td>
<td>Yes</td>
<td>Sale prohibited; available as animal feed</td>
</tr>
<tr>
<td>Hawaii</td>
<td>0</td>
<td>No</td>
<td>Sale prohibited</td>
</tr>
<tr>
<td>Idaho</td>
<td>1</td>
<td>Yes</td>
<td>Herd shares permitted</td>
</tr>
<tr>
<td>Illinois</td>
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<td>On-farm sale permitted</td>
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<tr>
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<td>23</td>
<td>Yes</td>
<td>Sale prohibited but herd shares tolerated</td>
</tr>
<tr>
<td>Iowa</td>
<td>0</td>
<td>No</td>
<td>Sale prohibited</td>
</tr>
<tr>
<td>Kansas</td>
<td>2</td>
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<tr>
<td>Kentucky</td>
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<td>Maryland</td>
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<td>Yes</td>
<td>Herd shares and sale prohibited</td>
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<td>On-farm sale permitted</td>
</tr>
<tr>
<td>Michigan</td>
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<td>Herd shares permitted</td>
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<tr>
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<td>Yes</td>
<td>On-farm sale permitted</td>
</tr>
<tr>
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<td>On-farm sale permitted</td>
</tr>
<tr>
<td>Missouri</td>
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</tr>
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<td>Nebraska</td>
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<td>On-farm sale permitted</td>
</tr>
<tr>
<td>Nevada</td>
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<td>New Mexico</td>
<td>2</td>
<td>Yes</td>
<td>Sale permitted</td>
</tr>
<tr>
<td>New York</td>
<td>2</td>
<td>Yes</td>
<td>On-farm sale permitted</td>
</tr>
<tr>
<td>North Carolina</td>
<td>0</td>
<td>Yes</td>
<td>Sale permitted as animal feed; herd shares prohibited</td>
</tr>
<tr>
<td>North Dakota</td>
<td>2</td>
<td>Yes</td>
<td>Herd shares permitted</td>
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<tr>
<td>State</td>
<td>Herd Share Permitted</td>
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<tr>
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<tr>
<td>Ohio</td>
<td>25 Yes</td>
<td>Sale prohibited</td>
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<tr>
<td>Oklahoma</td>
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<td>On-farm sale permitted</td>
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<tr>
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<td>Pennsylvania</td>
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<tr>
<td>Rhode Island</td>
<td>0 No</td>
<td>Prescription; sale</td>
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<td>South Carolina</td>
<td>0 Yes</td>
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<tr>
<td>South Dakota</td>
<td>0 Yes</td>
<td>On-farm sale permitted</td>
<td></td>
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<tr>
<td>Tennessee</td>
<td>43 Yes</td>
<td>Herd shares permitted</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td>13 Yes</td>
<td>Sale permitted</td>
<td></td>
</tr>
<tr>
<td>Utah</td>
<td>0 Yes</td>
<td>Sale permitted; but herd</td>
<td></td>
</tr>
<tr>
<td>Vermont</td>
<td>2 Yes</td>
<td>On-farm sale permitted</td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td>88 Yes</td>
<td>Sale prohibited</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>1 Yes</td>
<td>Sale permitted</td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td>0 Yes</td>
<td>Herd share and sale</td>
<td></td>
</tr>
<tr>
<td>Wisconsin</td>
<td>0 Yes</td>
<td>On-farm sale permitted</td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td>3 Yes</td>
<td>Herd shares permitted</td>
<td></td>
</tr>
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</table>
“Don’t Have a Cow, Man!”: Recognizing Herd Share Agreements for Raw Milk