DÉJÀ MOO: IS THE RETURN TO PUBLIC SALE OF RAW MILK UDDER NONSENSE?

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I. INTRODUCTION

A growing number of U.S. consumers are devotees of unpasteurized "raw" cow, goat, and sheep milk. Milk can be easily contaminated by several common viruses and bacteria, and serious health risks are associated with consuming contaminated milk. Pasteurization is a process that cooks the milk for short periods of time to reduce disease pathogens. However, it may also reduce some of milk's inherently beneficial qualities, such as available nutrients, active enzymes, helpful bacteria, calcium absorption, and taste.[2] Despite the potential risks to human health, consumers continue to demand and producers continue to market raw milk to the general public.[3] This can trigger liability under a number of legal theories.

Since 1987, the U.S. Food and Drug Administration (FDA) has required all milk intended for human consumption and entering interstate commerce to be pasteurized. However, the FDA explicitly allows the states to regulate intrastate milk sale and consumption. This has led to a hodge-podge of state laws and regulations concerning raw milk. Many states require milk for human consumption to be pasteurized, but some allow raw milk to be sold under specific conditions.

This article outlines the regulation of raw milk by the federal government and the states, and examines the legal ramifications of marketing raw milk to the end consumer. Section II includes background information on raw milk, including arguments for and against raw milk consumption. In Section III, federal and state regulation of raw milk are discussed, including the federal prohibition on interstate sales of raw milk, and the various statutory treatments of raw milk by the states. Section IV discusses legal theories that consumers injured by raw milk may use to recover damages, and Section V outlines potential affirmative de-

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2. Linda Bren, *Got Milk? Make Sure It's Pasteurized*, FDA CONSUMER MAG. Sept.-Oct. 2004 at 29-30 (Raw milk advocates claim that unprocessed milk is healthier because pasteurization destroys nutrients and enzymes necessary to absorb calcium. It also kills beneficial bacteria and is associated with allergies, arthritis, and other diseases).

3. Forty of the forty-six disease outbreaks from raw milk that were reported by the U.S. Centers for Disease Control from 1973-1992 were in states where raw milk sales were legal. Marcia L. Headrick et al., *The Epidemiology of Raw Milk-Associated Foodborne Disease Outbreaks Reported in the United States, 1973 Through 1992*, 88 AM. J. PUB. HEALTH 1219, 1219-20 (1998).

fenses that may be raised by producers or vendors that sell raw milk. Section VI provides a brief discussion of the policy implications of raw milk regulation, and Section VII concludes the paper.

II. BACKGROUND

Milk has been important to the human diet since domesticated cows were first milked about 11,000 years ago.[4] Milk is a rich source of nutrition that contains all the known vitamins; it is an excellent source for essential minerals, protein, fats, carbohydrates, and amino acids,[5] especially when fortified to improve its nutritive value.[6] Yet danger may lurk in the milk jug. Milk provides an ideal environment for a number of dangerous bacteria and viruses.[7] Anthrax, Campylobacter,[8] E. coli,[9] Listeria, Rabies,[10] Salmonella,[11] Staphylococcus, Tuberculosis, Typhoid fever, and Yersiniosis[12] have all been contracted from drinking milk.[13]

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4. J. K. Shearer et al., *The Production of Quality Milk*, UNIVERSITY OF FLORIDA, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES (2003), http://edis.ifas.ufl.edu/DS112.

5. Edmund Renner, *Effects of Agricultural Practices on Milk and Dairy Products*, *in* NUTRITIONAL EVALUATION OF FOOD PROCESSING 205-07 (Endel Karmas & Robert S. Harris eds., 3d ed. 1988). *See also* P. WALSTRA ET AL., DAIRY TECHNOLOGY: PRINCIPLES OF MILK PROPERTIES AND PROCESSES 100 (1999).

6. Benjamin Borenstein & Howard T. Gordon, *Addition of Vitamins, Minerals, and Amino Acids to Foods*, *in* NUTRITIONAL EVALUATION OF FOOD PROCESSING 609 (Endel Karmas & Robert S. Harris eds., 3d ed. 1988).

7. *See* LORE A. ROGERS, U.S. DEPT. OF AGRIC., THE BACTERIA OF PASTEURIZED AND UNPASTEURIZED MILK UNDER LABORATORY CONDITIONS 17-24 (1905).

8. Campylobacter is linked to several deaths each year, severe limb paralysis, chronic joint pain and breathing difficulties. *See* Cindy R. Friedman et al., *Risk Factors for Sporadic Campylobacter Infection in the United States: A Case-Control Study in FoodNet Sites*, CLINICAL INFECTIOUS DISEASES, Apr. 15, 2004, at S285. *See also* Sean F. Altekruse et al., *Campylobacter jejuni—An Emerging Foodborne Pathogen*, 5 EMERGING INFECTIOUS DISEASES 28, 28-29 (1999).

9. E. coli causes approximately sixty-one deaths in the United States each year. CENTERS FOR DISEASE CONTROL AND PREVENTION, PULSENET PATHOGENS- ESCHERICHIA COLI O157:H7 (2005), http://www.cdc.gov/pulsenet/pathogens_pages/escherichiacoli_O157H7.htm.

10. Centers for Disease Control and Prevention, *Mass Treatment of Humans Who Drank Unpasteurized Milk from Rabid Cows-Massachusetts, 1996–1998*, 48 MORBIDITY & MORTALITY WKLY. REP. 228, 228-29 (1999); WALSTRA ET AL., *supra* note 5, at 162.

11. In 1985, a Salmonella outbreak in the Midwest sickened some 200,000 people, and led to eighteen deaths. RON SCHMID, THE UNTOLD STORY OF MILK: GREEN PASTURES, CONTENTED COWS AND RAW DAIRY FOODS 253 (2003). *See also* Paul D. Frenzen et al., *Salmonella Cost Estimate Updated Using FoodNet Data*, FOODREVIEW, SEPT. 1999, at 10, 15 (noting that Salmonella causes an estimated 600 deaths in the U.S. each year).

12. In 1982, there was an outbreak of over a hundred cases of Y. enteocolitica illnesses in Arkansas, Tennessee, and Mississippi. Symptoms were severe, requiring hospitalization and appendectomies. Y. enterocolitica can sometimes survive pasteurization in small but replicative

These illnesses have serious health consequences. For example, Listeria can lead to miscarriages.[14]

Milk contamination primarily occurs via the mammary gland and outside contamination, like fecal matter on milking equipment or udders.[15] Unhealthy dairy animals can secrete bacteria and viruses into their milk, and animal feed can carry microorganisms that survive the digestive track and infect milk via contaminated dung on udders.[16] Outside contamination has numerous sources, including sick farm labor and generally unsanitary conditions,[17] bacteria from hay dust if air is sucked into mechanical milking devices or settle into milking pails,[18] and improper refrigeration or improper handling.[19] Clean udders and equipment are essential for milk hygiene, but "complete removal" of contaminants is impossible.[20] Once milk is contaminated, the problem is spread by pooling milk during the collection and transportation process.[21]

Beginning in the early twentieth century, public health concerns led the federal government and many states to regulate milk production and marketing,[22]

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numbers and is found in raw milk. Centers for Disease Control, *Epidemiologic Notes and Reports Multi-State Outbreak of Yersiniosis*, 31 MORBIDITY & MORTALITY WKLY. REP. 505, 505-06 (1982).

13. *See* Elizabeth Barnes, *How to Pasteurize At Home*, MOTHER EARTH NEWS, Aug.-Sept. 1998, *available at* http://www.motherearthnews.com/Real-Food/1998-08-01/How-To-Pasteurize-At-Home.aspx.

14. In 2000-2001, ten pregnant women became ill with Listeria monocytogenes after they ate raw milk cheese. There were five still births, three premature deliveries, and two infected newborns. Fatality rates from Listeria can be as high as forty percent. Bren, *supra* note 2, at 29, 31. *See also* Anita Rampling, *Raw Milk Cheeses and Salmonella*, 312 BRIT. MED. J. 67, 67-68 (1996).

15. In healthy cows, harmful bacteria are found in the teat. However, cows have defenses to reduce bacterial infestation like bactericidal agents in the teat canal and milk itself. WALSTRA ET AL., *supra* note 5, at 165.

16. Dangerous bacteria can be shed into the milk from the animal's intestines. Altekruse et al., *Campylobacter*, *supra* note 8, at 32. *See also id*. at 163 (bacteria that can survive the digestive tract include Bacillus cereus, B.subtilis, Clostridium tyrobutyricum, among others).

17. WALSTRA ET AL., *supra* note 5, at 167-68.

18. Bacteria are commonly found in soil, cattle feed, and feces. They can survive heat treatment in sufficient numbers to cause spoilage, bad flavors and illness. *Id*. at 104, 167.

19. *See, e.g.*, M.W. Griffiths et al., *Effect of Low-temperature Storage on the Bacteriological Quality of Raw Milk*, FOOD MICROBIOLOGY, July 7, 1987 at 285-91; *see also* Thomas A. McMeekin & Thomas Ross, *Shelf Life Prediction: Status and Future Possibilities*, 33 INT'L J. FOOD MICROBIOLOGY 65, 65-83 (1996).

20. WALSTRA ET AL., *supra* note 5, at 166.

21. *See, e.g.*, S. Lin et al., *Identification of Contamination Sources of Bacillus cereus in Pasteurized Milk*, 43 INT'L J. FOOD MICROBIOLOGY 159, 168-70 (1998). *See also* JOANN SILLS GROHMAN, KEEPING A FAMILY COW: A COMPLETE GUIDE TO RAISING COWS AND PRODUCING DAIRY PRODUCTS FOR HOME USE 77-78 (1975).

22. The FDA's definition of milk fit for human consumption makes three references to health-based criteria: "the lacteal secretion, practically free from colostrum, obtained by the com-

including pasteurization.[23] Pasteurization is "the application of heat to destroy human pathogens in foods."[24] Today, there are two widely-used pasteurization methods: low temperature/long time treatment (LTLT) and high temperature/short time treatment (HTST). LTLT heats milk for thirty minutes at 145 degrees Fahrenheit, while HTST heats milk at a temperature of 161.5 degrees Fahrenheit for a minimum of fifteen seconds.[25] Both methods are largely effective at reducing milk's bacterial load by destroying nearly all microorganisms.[26]

Although raw milk consumption has dropped significantly—from 1935 to 1975 raw milk consumption fell from roughly 100% of the population to less than 7.5%[27]—raw milk continues to be a public health issue.[28] According to the Centers for Disease Control and Prevention, from 1973 to 1992 there were 1,733 documented raw milk-related illnesses in the United States.[29] A 2004 National Association of State Departments of Agriculture survey found twenty-nine states

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plete milking of one or more healthy cows . . . [that] shall have been pasteurized or ultra-pasteurized." 21 C.F.R. §131.110(a) (2008).

23. Pasteurization was first applied to "diseases" of wine and then to milk after publicity of New York's raw milk "swill" stables where cows were fed grain mash from distilleries and breweries, and produced a bluish, bacteria-laden milk. M. J. ROSENAU, THE MILK QUESTION 186, 194 (1912).

24. International Dairy Foods Association, Pasteurization: Definition and Methods, http://www.idfa.org/facts/milk/pasteur.cfm (last visited Sept. 8, 2008). *See also* James H. Steele, *History, Trends, and Extent of Pasteurization*, 217 J. AM. VETERINARY MED. ASS'N. 175, 175-77 (2000).

25. JEREMY STRANKS, THE A-Z OF FOOD SAFETY 218 (2007); Craig Baumrucker, *Why Does Organic Milk Last So Much Longer than Regular Milk?,* SCIENTIFIC AMERICAN, June 6, 2008, *available at* http://www.scram.com/artickicfm?id=experts-organic-milk-lasts-longer.

26. Some bacteria survive pasteurization, but in very low numbers and little buildup of toxins. ROSENAU, *supra* note 23, at 185. *See also* Irene R. Grant et al., *Mycobacterium avium ssp. paratuberculosis: Its Incidence, Heat Resistance and Detection in Milk and Dairy Products*, 54 INT'L J. DAIRY TECH. 2, 2-11 (2001); WALSTRA ET AL., *supra* note 5, at 163-64; DARYL LUND, *Effects of Heat Processing on Nutrients*, *in* NUTRITIONAL EVALUATION OF FOOD PROCESSING 319, 320 (Endel Karmas & Robert S. Harris eds., 3d ed. 1988).

27. William Campbell Douglass Jr. & Aajonus Vonderplanitz, Supplemental Report in Favor of Grade A Raw Milk: Expert Report and Recommendation http://www.karlloren.com /aajonus/p15.htm (last visited Sept. 8, 2008).

28. A strong parallel exists between pasteurization and the significant drop in milkborne illnesses. *See* CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, U.S. FOOD AND DRUG ADMIN., GRADE "A" PASTEURIZED MILK ORDINANCE (2003 REVISION) (Mar. 2, 2004), *available at* http://www.cfsan.fda.gov/~ear/pmo03.html; *see also* Shearer et al., *supra* note 4. Steele, *supra* note 24, at 175-78. E. MELANIE DUPUIS, NATURE'S PERFECT FOOD: HOW MILK BECAME AMERICA'S DRINK 81 (2002).

29. Headrick et al., *Epidemiology*, *supra* note 3, at 1220 (In 1938, milk-related diseases constituted about one-quarter of the U.S. disease outbreaks from consumer food or water supplies. Today, they account for less than 1%); CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

that have recorded raw milk-related illness outbreaks.[30] From 1998 to May 2005, at least forty-five such outbreaks were reported to the FDA by states.[31] Some of these outbreaks have involved severe symptoms and hospitalization.[32]

Pasteurization does not provide fail-safe protection, but provides an added layer of liability protection by its reduction of pathogens that can injure consumers. Disease outbreaks are still linked to pasteurized milk, typically the result of improper handling. For example, in 2000, several cases of Salmonella infections occurred in New Jersey and Pennsylvania from milk contaminated after pasteurization.[33] After reviewing the facts of twelve other similar pasteurized milk-connected outbreaks from 1960-2000, seven outbreaks were found to be caused by post-pasteurization contamination.[34]

Despite the health risks, raw milk enthusiasts continue to seek out the product.[35] They argue that heat exposure from pasteurization harms the flavor and

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30. Dairy Division, National Ass'n of State Dept. of Agric., Raw Milk Survey (Nov. 2004), *available at* www.nasda.org/file.aspx?id=11160.

31. U.S. FOOD AND DRUG ADMIN., FDA AND CDC REMIND CONSUMERS OF THE DANGERS OF DRINKING RAW MILK (Mar. 1, 2007), http://www.fda.gov/bbs/topics/NEWS/2007/NEW01576.html.

32. *See, e.g.*, CDC, *Outbreak of Campylobacter jejuni Infections Associated with Drinking Unpasteurized Milk Procured Through a Cow-Leasing Program—Wisconsin, 2001,* 51 MORBIDITY & MORTALITY WKLY. REP. 548 (June 2002) (in 2001, seventy-five cases of severe gastro-intestinal illnesses from C. jejuni were linked to people drinking unpasteurized milk). *See also* CDC, *Multistate Outbreak of Salmonella Serotype Typhimurium Infections Associated with Drinking Unpasteurized Milk-Illinois, Indiana, Ohio, and Tennessee, 2002-2003*, 52 MORBIDITY & MORTALITY WKLY. REP. 613 (July 2003) (in 2002, several Ohio children were hospitalized with Salmonella food poisoning after visiting a small dairy).

33. Sonja J. Olsen et al., *Multidrug-resistant Salmonella Typhimurium Infection from Milk Contaminated After Pasteurization*, EMERGING INFECTIOUS DISEASES, May 2004, at 932.

34. CDC, *Salmonellosis from Inadequately Pasteurized Milk-Kentucky*, 33 MORBIDITY & MORTALITY WKLY. REP. 505 (Sept. 1984). *See also* CDC, *Milk-Borne Salmonellosis- Illinois*, 34 MORBIDITY & MORTALITY WKLY. REP. 200 (Apr. 1985); Rodrigo G. Villar et al., *Investigation of Multidrug-Resistant Salmonella Serotype Typhimurium DT104 Infections Linked to Raw-Milk Cheese in Washington State*, 281 J. AM. MED. ASSOC. 1811, 1811-16 (May 1999) (In 1997, fifty-four cases of Salmonella were reported in Washington state. Several of the patients had reported eating Mexican-style soft cheese made with unpasteurized milk, which was determined to be a principle source of the multi-drug resistant Salmonella strain).

35. *See, e.g.*, *Advocates for Unpasteurized Milk Hoping to Change State Law*, HIGH PLAINS/MIDWEST AG J., Jan. 17, 2005, *available at* http://www.hpj.com/archives/2005/jan05/jan17/advocatesforunpasteurizedmi.cfm ("Kate Heidorn, a 41-year old mother of two, has to keep her supplier a secret" or "Heidorn's source could be fined up to $500 . . . if the State Department of Agriculture discovered which farmer was selling her unpasteurized milk."). *See also* Eric Schwartzberg, *Got Real Milk?: Raw Milk—The Underground Network for "Moo-shine,"* THE OXFORD PRESS, Apr. 19, 2007, *available at* http://www.oxfordpress.com/hp/cpntent/oh/story/news/local/2007/04/18/fe041907gotmilk.html.

nutritional composition of milk.[36] Studies confirm that pasteurization does change the flavor of milk, sometimes creating a cooked flavor.[37] Milk's principal sugar (lactose) reacts with amino acids to change the flavor of milk when heated,[38] known as the Maillard reaction.[39] Nutritional quality is also easily influenced by environmental factors, such as heat. Depending on the pasteurization method, vitamin loss can be up to twenty percent for vitamin B1, 50% for vitamins B6 and B12, and one hundred percent for vitamins B9 and C within three months.[40] Severe vitamin loss results from UHT sterilization, an extreme pasteurization method designed for long-term non-refrigerated storage.[41] Average losses of less heat-resistant vitamins via pasteurization include less than ten percent of vitamin B1, B12, and folic acid; 0-8% of B6, and 10-25% of vitamin C.[42] However, these losses are considered nutritionally insignificant[43] and some vitamins are not found in sufficient quantities in unfortified raw milk. For example, Vitamin D, a contributing factor for calcium absorption, does not exist in significant levels of raw milk and is routinely added to pasteurized milk.[44] Specially-treated fortified vitamins and minerals, including A, B1, B12, C, and D, can be more resistant to degradation and heat than natural vitamins and minerals.[45] Raw milk supporters also argue that pasteurized milk suffers from partially broken-down proteins and enzymes. Pasteurization breaks down between 10% and 80% of whey protein in milk,[46] and some enzymes are eliminated altogether.[47] Pasteurization also breaks down milk's natural bacteria inhibitors, like immunoglobulin antibodies that at-

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36. *See, e.g.*, Sally Squires, *Milk Does a Body Good, But What If It's Raw?,* THE TIMES UNION, Aug. 9, 2007, at E3; James L. Smith, *Consumers' Enthusiasm Growing for Farmer's Raw Milk*, FLINT JOURNAL, Mar. 12, 2006, *available at* http://www.campylobacterblog.com/2006/03/articles/campylobacter-watch/consumers-enthusiasm-growing-for-farmers-raw-milk/; Ira Dreyfuss, *Weekly Farm: Unpasteurized Milk Has Fans Despite Health Officials' Warnings*, ASSOCIATED PRESS, Apr. 3, 2004.

37. WALSTRA ET AL., *supra* note 5, at 189.

38. *Id.* at 199.

39. Small amounts of ketones and aldehydes impact flavor and melanodines cause milk to color brown. Loss of nutrition is mainly lysine unavailability, caused by the Maillard reaction. *Id.* at 191-92, 198-200 (storage temperature, milk composition, and pH impacts the Maillard reaction).

40. *Id.* at 403 tbl. 14.3.

41. *Id.* at 209, 393.

42. Renner, *supra* note 5, at 212 tbl. 8.6.

43. *Id.*

44. S*ee* Bren, *supra* note 2, at 29, 30.

45. Borenstein & Gordon, *supra* note 6, at 609-14 (noting that artificially added vitamins can be more stable in processing and storage than their naturally-occurring counterparts, and some can be coated or "antioxidant-stabilized").

46. Renner, *supra* note 5, at 210.

47. *Id.*

tack specific antigens and bacteria "specific for the species and strains of bacteria encountered by the cow."[48] However, most natural milk enzymes have no apparent "biological function in milk," even despite some enzymes' high concentrations.[49] Furthermore, the concentration of immunoglobulins and other inhibitors in milk is generally very low.[50]

Whether for perceived taste or health benefits, some consumers continue to demand raw milk. Some are willing to pay very high prices for the milk, and several dairy farms have been cashing-in[51] despite regulatory barriers and legal liability dangers. Those producing and marketing raw milk for human consumption face statutory hurdles and important legal liability issues that are discussed below.

III. REGULATION OF MILK FOR HUMAN CONSUMPTION

A. *Federal Prohibition on Interstate Sales of Raw Milk for Human Consumption*

Laws regulating the sale of milk are clearly divided along state commerce lines. Any milk passing into interstate commerce is regulated by the FDA, which explicitly allows states to regulate milk sales wholly within intrastate commerce. FDA rules clearly prohibit the sale of any raw fluid milk to the final consumer.[52] In 1927, the U.S. established federal standards for safe milk production and interstate transport.[53] The FDA adopted rules on proper milk production and handling, known initially as the "Milk Ordinance" and later as the "Pasteurized Milk Ordinance."[54] However, it was not until 1974 that the FDA required pasteurization of all milk in interstate commerce.[55] After a complaint from a certified raw milk producer, the FDA stayed this rule for "certified" raw milk,[56] and

48. WALSTRA ET AL., *supra* note 5, at 155.

49. *Id*. at 91.

50. *Id*. at 155-56.

51. *See, e.g.*, Craig Gustafson, *Farmer Challenges Minnesota Law- Long Prairie Dairyman Fighting Restrictions on Raw Milk*, ASSOCIATED PRESS, Mar. 15, 2004 (noting that raw milk can be sold for triple the price of pasteurized milk).

52. CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

53. Milk Importation Act, Pub. L. No. 69-625, 44 Stat. 1101 (1927).

54. CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

55. Milk and Cream, 38 Fed. Reg. 27924 (Oct. 10, 1973). *See* 21 U.S.C. § 143 (2008) (Limited exceptions allow the sale and transportation of raw milk for further processing. None of the exceptions allow raw milk to reach the final consumer after it enters interstate commerce). *See also* CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

56. Identity Standards for Milk and Cream; Order Staying Certain Provisions, 39 Fed. Reg. 42351 (Dec. 5, 1974).

from 1974 to 1982, the FDA held hearings and collected evidence on the human health implications of raw milk.[57]

In 1982, the FDA drafted but did not adopt a new rule requiring pasteurization of all milk and milk products meant for human consumption, citing that "[r]aw milk, no matter how carefully produced, may be unsafe . . . [and it] has not been shown to be feasible to perform routine bacteriological tests on the raw milk itself to determine the presence or absence of all pathogens and thereby ensure that it is free of infectious organisms."[58] Soon after, the government watchdog group Public Citizen sued the Department of Health and Human Services (HHS) to force the rule's adoption.[59] In a prior ruling, the court determined that the FDA had unreasonably delayed promulgating the rule, and that their justification for this delay—that raw milk interstate sales were too few to be of concern—was insufficient in light of the relative risk of disease.[60] The FDA claimed that a federal ban on raw milk would not be the most effective means of dealing with the risk posed based on the predominance of intrastate rather than interstate commerce of raw milk.[61] Public Citizen proffered a significant amount of evidence of the dangers of raw milk, while the HHS provided very little; the court concluded that the refusal to ban interstate sale of raw milk was "arbitrary and capricious"[62] and that the agency was compelled to promulgate a rule prohibiting the interstate sale of raw milk, certified or otherwise.[63] The court further stated that decisions on *intra*state bans should be left to the states, since such bans do not enhance the effectiveness of an interstate ban.[64] On August 10, 1987, the FDA adopted its current regulatory stance.[65] Today, the only exception to the milk products pasteurization rule is that certain aged raw milk cheeses are allowed to be sold across state lines[66] because the aging process eliminates much of

57. Public Citizen v. Heckler (Public II), 653 F. Supp. 1229, 1232 (D.D.C. 1986).

58. CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

59. Public Citizen v. Heckler (Public I), 602 F. Supp. 611 (D.D.C. 1985).

60. Public II, 653 F.Supp at 1235 (the court reasoned that the risk of disease per single sale of certified raw milk was high).

61. *Id.*

62. *Id.* at 1238.

63. Public I, 602 F.Supp at 612.

64. Public II, 653 F.Supp at 1241.

65. Requirements Affecting Raw Milk for Human Consumption in Interstate Commerce, 52 Fed. Reg. 29509 (Aug. 10, 1987) (to be codified at 21 C.F.R. pt. 1240) (The final regulation mandated the pasteurization of all milk products for direct human consumption in interstate commerce, effective September 9, 1987. In its final rule notification, the FDA indicated its intention to prohibit raw milk sales).

66. 21 C.F.R. § 1240.61 (2008).

the inherent risk of consuming raw milk products.[67] Because the FDA has expressly avoided regulating raw milk in intrastate commerce,[68] there is no federal supremacy issue to hamper the states' allowance of raw milk sales.

B. *States' Regulation of Raw Milk*

Marketing raw milk to consumers may create both criminal and civil liability at the state level. In many states, marketing raw milk to consumers is explicitly illegal. In others, there are labeling requirements, production quotas, and other factors that must be satisfied for a raw milk marketing operation to be legal. Even when allowed (or not explicitly disallowed) by state statute, raw milk producers may face liability from the end user under negligence and products liability theories.

States regulate milk in intrastate commerce via their police powers to protect public health.[69] This may include inspection, quarantine, pasteurization, and various other health-related requirements.[70] Challenges of states' power to regulate milk are highly unlikely to succeed. Courts have been very hostile to police power-based challenges of states' and municipalities'[71] raw milk regulations, even when the milk meets the highest standards of the FDA's model Pasteurized Milk Ordinance (PMO).[72]

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67. *See, e.g.*, Paul S. Kindstedt, *Views on Raw Milk Cheeses: Pasteurization Isn't Best Approach to Enhance Cheese Safety*, CHEESE REPORTER, Sept. 3, 2004, at 4.

68. Public I, 602 F. Supp. at 612 (1985). *See also* CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28.

69. *See, e.g.*, Powell v. Pennsylvania, 127 U.S. 678, 683 (1888). *See also* Aerated Products Co. of Phila. v. Dep't of Health, 59 F. Supp. 652, 657 (D.N.J. 1945); Udey v. Kastner, 644 F. Supp. 1441, 1446 (E.D. Tex. 1986); City of Phoenix v. Breuninger, 72 P.2d 580, 582 (Ariz. 1937); Shelton v. City of Shelton, 150 A. 811, 813 (Conn. 1930); Brielman v. Monroe, 17 N.E.2d 187, 188-89 (Mass. 1938); Schlenker v. Bd. of Health, 167 N.E.2d 920, 920-22 (Ohio 1960); Allegheny County v. Brunner 28 Pa D. & C.2d 32, 33-35 (1961).

70. *See* Gibbons v. Ogden, 22 U.S. 1, 235-36 (1824).

71. 35A AM. JUR. 2D *Food* § 39 (2008) ("Legislation relating to the regulation and control of milk is valid so long as it is not unreasonable or discriminatory."). *See also* Dean Milk Co. v. City of Madison, 340 U.S. 349, 353 (1951) (the "sanitary regulation of milk and milk products" is legitimate to protect the safety, health, and well-being of the municipality or the state); *See also* Koy v. City of Chicago, 263 N.E. 1104, 1108 (Ill. 1914); Stephens v. Okla. City, 1 P.2d 367, 369 (Okla. 1931); City of Weslaco v. Melton, 308 S.W.2d 18, 19 (Tex. 1957); Pfeffer v. City of Milwaukee, 177 N.W. 850, 851 (Wis. 1920); People *ex rel.* Ogden v. McGowan, 195 N.Y.S. 286, 289 (N.Y. Sup. Ct. 1921); Commonwealth *ex rel.* Allegheny County v. Shenot, 218 A.2d 76 (Pa. Super. Ct. 1966).

72. *See* CTR. FOR FOOD SAFETY AND APPLIED NUTRITION, *supra* note 28 (describing "Grade A" as a cooperative program between the Food and Drug Administration and state governments that establishes universal standards of milk safety, including pasteurization). *See also* City

States have taken a variety of approaches to regulating raw milk, including a mix of four general approaches: (1) Actual or *de facto* prohibition on sale, (2) Animal-share or leasing, (3) Limited public sale and/or labeling requirements, and (4) Pet food exception.

1. *Prohibition on Sale*

In 1948, Michigan was the first state to statutorily require that all milk sold to consumers be pasteurized. Today, twenty-two states and the District of Columbia essentially ban raw milk sales (by adopting some form of the FDA's PMO)[73], yet some illegal raw milk sales persist in some of these jurisdictions.[74]

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of Weslaco, 308 S.W.2d at 19; Village of Herkimer v. Potter, 207 N.Y.S. 35, 37-39 (N.Y. Sup. Ct. 1924).

73. John A. Beers, *National Raw Milk and Cheese Survey Results*, AGRIC. LAW UPDATE, Mar. 2006, at 2. (in Alabama, Alaska, Colorado, Delaware, Florida, Georgia, Hawaii, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Montana, New Jersey, North Carolina, North Dakota, Ohio, Rhode Island, Tennessee, Virginia, West Virginia, and Wyoming, raw milk sales for human consumption are essentially illegal.); ALA. ADMIN. CODE r. 420-3-16-.12 (2007); Del. Regs. 1615 (2005); 16-4000-4400 DEL. CODE REGS. § 4461 (Weil 2007); D.C. MUN. REGS. tit. 25, §§ 702.1, 710.2 (2008); FLA. STAT. § 502.091 (2008); FLA. ADMIN. CODE ANN. r. 5D-1.001 (2008); GA. CODE ANN. §§ 26-2-238, -242 (2007) (adoption of the FDA's Pasteurized Milk Ordinance); GA. COMP. R. & REGS. 40-2-1-.01 (2008); HAW. CODE R. § 11-15-46 (Weil 2005); IND. CODE § 15-18-1-20 (2008); IOWA CODE §§ 192.102, .103 (2008); 902 KY. ADMIN. REGS. 45:005(4)(2), 50:110(2), 50:120 (creating a permit system for the sale of unpasteurized goat milk); KY. REV. STAT. ANN. § 217C.090 (West 2007) (allowing the sale of raw goat milk with written physician's note); LA. REV. STAT. ANN. § 40:922 (2008); LA. ADMIN. CODE tit. 51 pt. VII § 919 (2008); MD. CODE REGS. 10.15.06.01-1, .06(F)(1) (2008) (defining a sale of raw milk to include the right to acquire milk or milk products in exchange for any form of compensation "including the sale of shares or interest in a cow, goat, or other lactating hoofed mammal or herd"); MICH. COMP. LAWS § 288.538(68) (2008); MONT. ADMIN. R. 32.8.102, .103 (2007); NEV. REV. STAT. §584.207, .2031 (2007) (allowing raw milk sales through a permit system for certified raw milk, although no permits have been issued); N.J. STAT. ANN. § 24:10-57.17 (2008); N.C. GEN. STAT. § 130A-279 (2008), 15A N.C. ADMIN. CODE 18A.1210(a) (2008); N.D. CENT. CODE § 4-30-36.4 (2008); N.D. ADMIN. CODE 7-03.1-12-01.1, -21-01, -22-01 (2008) ("Raw sheep milk offered for sale must be from healthy sheep" but "goat milk must be produced and processed according to grade A"); OHIO ADMIN. CODE § 917.04 (2008) ("No raw milk vendor shall sell, offer for sale, or expose for sale raw milk to the ultimate consumer" except for grandfathered-in vendors. In Ohio, selling raw milk is essentially illegal given the very narrow definition of a legal vendor); Ben Sutherly, *Darke Dairy Can Resume Sales of Raw Milk*, DAYTON DAILY NEWS, Mar. 21, 2007, *available at* http://nl.newsbank.com/n1search/we/archives?p_action=print (The Darke County Common Pleas court ordered the department to take no further action against the dairy farmer and overturned a decision by the department that had revoked her milk license saying that her herd-share agreements had not violated state law. The case started when a 63-year old man and a 4-year old became ill with campylobacter infections from drinking raw milk. Ohio's Governor Strickland suggested that there is not sufficient evidence to appeal the decision); R.I. GEN. LAWS § 21-2-2(8) (2007) ("a physician may authorize an individual sale of goat milk directly from producer to consumer by written, signed

Those selling raw milk in these jurisdictions should be wary of criminal liability for violating statutes, as well as potential negligence *per se* claims (discussed in Section IV).

2. *Limited Public Sale and/or Labeling Requirements*

Some states allow the sale of raw milk for human consumption, but severely restrict sales by quantity, by type or by requiring physician approval, or require warning labels. For example, some states only allow on-farm sales of raw goat milk, while other raw milk sales are illegal. Arkansas and Oklahoma allow up to a hundred gallons per month of raw goat milk to be sold for human consumption at the farm where it is produced.[75] Mississippi has a similar allowance.[76] In Kentucky and Rhode Island, raw milk sales are illegal except for medically-approved raw goat milk purchases.[77] Oregon allows on-farm sales of only goat and sheep milk with herd size limitations.[78] A couple of states only allow on-farm

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prescription"); TENN. COMP. R. & REGS. 0080-3-2-.11 (2006); Tennesseans for Raw Milk.com, Cow and Goat Boarding in TN, http://www.tennesseansforrawmilk.com/cowboarding list.htm (last visited Sept. 8, 2008) (displaying a memo from Tennessee Department of Agriculture General Counsel Pat Clark stating, "If a person who wants raw milk purchases a goat or a cow and boards the animal with a farmer who agrees to care for it and to milk it and hold the milk for the owner, then the farmer is not selling milk under Tennessee Law"); 2 VA. ADMIN. CODE §§ 5-490-70(A), 5-531-110 (2008); Carbaugh v. Solem, 302 S.E.2d 33, 35 (Va. 1983) (noting that raw milk sales are both a criminal and civil offense where prohibited by departmental regulation); Kenley v. Solem, 375 S.E.2d 532 (Va. 1989) (distributing milk from a goat share/lease program is illegal when it is commingled and redistributed for a fee); However, cow boarding may not be illegal and several herd boarding program operate in Virginia, e.g., Avery's Branch Farms, Cowboarding FAQ's, http://www.averysbranchfarms.com/gpage1.html (last visited Sept. 8, 2008); W. VA. CODE § 64-34-2 (2008); WYO. FOOD & SAFETY REGS. 3 § 8(a) (2008).

74. *See, e.g.*, *Advocates of Raw Milk Hoping to Change State Law*, HIGH PLAINS/ MIDWEST AG J., Jan. 17, 2005, *available at* http://www.hpj.com/archives/2005/jan05/jan17/ advocatesforunpasteurizedmi.cfm.

75. ARK. CODE. ANN. §§ 20-59-243, -248 (2008) (specifically allowing "incidental sales of goat milk," which include less than 100 gallons per month on average "at the farm where the milk is produced"); OKLA. STAT. tit. 2 §§ 7-406, -408, -414(A-B), -417 (2008) (specifically allowing "incidental sales of raw milk directly to consumers at the farm where the milk is produced" and defining "incidental sales" of goat milk as less than 100 gallons per month on average).

76. MISS. CODE. ANN. § 75-31-65 (2008) (adopting the FDA's PMO and allowing "incidental sales of raw goat milk" if "[t]he milk is sold directly to the consumer on the premises where the milk is produced" and no more than 9 milking goats are used).

77. KY. REV. STAT. ANN. § 217C.090 (West 2007); R.I. GEN. LAWS § 21-2-2(8) (2007).

78. OR. REV. STAT. §§ 621.012, .076(2), .116 (2007) (goat and sheep milk can be sold "[o]nly if (1) The person does not advertise the milk for sale; (2) The milk is sold directly to the consumer at the premises where produced; and (3) No more than three producing dairy cows, nine producing sheep or nine producing goats are located on the premises where the milk is produced."

sales, but do not specify the type of milk. Minnesota and Wisconsin allow only the "occasional" or "incidental" purchase of raw milk for personal use directly from a farmer.[79] Illinois, New Hampshire, and Texas also allow on-farm purchases from a properly permitted producer.[80] Connecticut, Idaho, and South Carolina also specifically allow raw milk sales only if properly permitted.[81] Kansas allows on-farm sales, but with advertising limitations,[82] while Vermont limits sales to 25 quarts per day.[83]

Some states mandate warning labels or signs to be present on containers or where the milk is sold. Two states combine on-farm and labeling requirements. In Missouri and Utah, raw milk sales are legal if done on the farm and the raw milk is clearly labeled.[84] A few states allow off-farm raw milk sales only when accompanied by specific warning labels. For example, in California, selling raw milk for human consumption is legal when raw milk is sold as "market milk," provided that producers are licensed and raw milk carries a statutorily-defined warning label.[85] Arizona, Maine, Massachusetts, Nebraska, New Mexico, New York, Pennsylvania, and South Dakota also allow raw milk sales for human consumption, but only if the product carries a warning label.[86]

"A person shall not bottle unpasteurized fluid milk except on the premises where it is produced." The retail sale of unpasteurized *cow's* milk is prohibited).

79. MINN. STAT. §§ 28A.15(2), 32.393(1) (2007); WIS. STAT. § 97.24(2) (2008).

80. 410 ILL. COMP. STAT. §§ 635/5, /8 (2008); N.H. REV. STAT. ANN. §§ 184:30-a,: 79(XI) (2008) (exempting sellers of less than an average of 20 quarts of milk per day from license requirements); 25 TEX. ADMIN. CODE §§ 217.2, .32 (2007).

81. CONN. GEN. STAT. II §§ 22-167, -172(b) (2008); IDAHO ADMIN. CODE r. 02.04.13. 006 (2008); S.C. CODE ANN. REGS. 61-34(3-4, 9) (2008).

82. KAN. STAT. ANN. §§ 65-771(w), -789(d) (2007) (allowing on-farm sales of raw milk to the final consumer "so long as the person making such sales does not promote the sale other than by the erection of a sign upon the premises of the dairy farm").

83. VT. STAT. ANN. tit. 6, §§ 2721, 2723(3) (2007) (exempting those selling less than 25 quarts of milk per day from license requirement).

84. MO. REV. STAT. § 196.935 (2008); MO. CODE REGS. ANN. tit. 2, §§ 80-3.030, .040 (2008); UTAH CODE ANN. § 4-3-14(2) (2008).

85. CAL. AGRIC. CODE §§ 33322, 33226, 35787, 35891, 35893, 35921 (West 2007) (establishing minimum requirements for Grade A raw milk, minimum standards for guaranteed raw milk that include on-premises bottling requirement, and minimum standards for Grade A raw milk from cows or goats); 17 CAL. CODE REGS. tit. 17, § 11380 (2008) (Requiring the label "WARNING: Raw (unpasteurized) milk and raw milk dairy products may contain disease-causing micro-organisms. Persons at highest risk of disease from these organisms include newborns and infants; the elderly; pregnant women; those taking corticosteroids, antibiotics or antacids; and those having chronic illnesses or other conditions that weaken their immunity.").

86. ARIZ. REV. STAT. ANN. §§ 3-606 (2008) (requiring the label "raw milk: not pasteurized and may contain organisms injurious to your health"); ME. REV. STAT. ANN. tit. 7, § 2902-B (2008) (requiring a label that states "not pasteurized" on raw milk products, and not allowing raw milk product use in restaurants); MASS. GEN. LAWS ch. 94, § 16J (2008), 330 MASS. CODE REGS. §

3. *Animal-share and Leasing*

Dairy animal leasing and animal-share programs exploit a loophole in some states' milk prohibitions. Animal leasing involves the rental of the dairy animal for a period of time, during which the renter may keep any milk produced. Animal shares involve the purchase of an ownership interest in the dairy animal, also essentially resulting in a transfer of milk for money.[87] Florida, Maryland, North Carolina, Virginia, and Wisconsin have closed this loophole,[88] but Colora-

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27.08(E-F) (2008) (requiring the label "Raw Cow's Milk" or "Raw Goat's Milk" and a consumer warning statement that reads "Raw milk is not pasteurized. Pasteurization destroys organisms that may be harmful to human health" and the words "not pasteurized" in large lettering); Thirteen Massachusetts dairies meet state standards to sell raw milk. Northeast Organic Farming Association- Massachusetts Chapter, NOFA Massachusetts Organic Dairy Program, http://www.nofamass.org/programs/organicdairy/index.php (last visited Sept. 8, 2008); NEB. REV. STAT. § 2-3969(3) (2008); N.M. STAT. ANN. § 25-8-1 (West 2008); N.M. CODE R. §§ 21.34.2.9, .12 (Weil 2008) (requiring grade A permits to sell raw milk, labeling that contains the words "raw" and the statement "RAW MILK IS NOT PASTEURIZED AND MAY CONTAIN ORGANISMS THAT CAUSE HUMAN DISEASE," and separate displays for raw and pasteurized milk); N.Y. COMP. CODES R. & REGS. tit. 1, § 2.3(b) (2008) (allowing on farm sales if a sign at the point of sale reads "NOTICE: Raw milk sold here. Raw milk does not provide the protection of pasteurization"); 31 PA. CONS. STAT. §§ 651, 652 (2008) (defining raw milk narrowly as "milk from a cow or cows"); 7 PA. CODE § 59.302(6) (2008); S.D. CODIFIED LAWS § 39-6-3 (2008).

87. *See, e.g.*, A Campaign for Real Milk, Share Agreements: Cow Shares, Herd Shares, Farm Shares, http://www.realmilk.com/cowfarmshare.html (last visited Sept. 8, 2008) (defining cow share: "consumers pay a farmer a fee for boarding the cow, (or share of a cow), caring for the cow and milking the cow").

88. FLA. ADMIN. CODE ANN. r. 5D-1.001(2)(l) (2008) (defining "sold" as "a transfer of milk or milk products that involves any direct or indirect form of compensation in exchange for the right to acquire such milk or milk products"); MD. CODE REGS. 10.15.06.01-1, .06(F)(1) (2008) (defining sale to include the right to acquire milk products in exchange for any form of compensation, "including the sale of shares or interest" in dairy animals); N.C. GEN. STAT. § 130A-279 (2008) (defining sale as "any transaction that involves the transfer or dispensing of milk and milk products or the rights to acquire milk and milk products through barter or contractual arrangement or in exchange for any other form of compensation including, but not limited to, the sale of shares or interest in a cow, goat, or other lactating animal or herd"); Carbaugh v. Solem, 302 S.E.2d 33, 34-35 (Va. 1983) (Solem created a lease-a-goat program, by which people would rent the goat as a lessee who signed a lease and paid a fee of three dollars a day for a goat. The lessee got to keep the goat's "by-products"— the goat's milk— and view the goat legally as their "family pet" for 24 hours. Solem argued that as the goat was rented, raw milk was never sold, by which she did not violate the state's prohibition. The court reasoned that the violation of the law was the sale of raw milk. It did not matter what type of arrangement occurred regarding the goat or title to the goat, but was a sale, as defined by the state's statute, because at least a portion of the rental fee was attributable to the milk's value. Therefore, as money was exchanged for the milk, a sale in violation of the law occurred; the goat lease was a smokescreen that "skews the issue."); Kenley v. Solem. 375 S.E.2d 532, 532-33 (Va. 1989) (Solem had tried to supply unpasteurized goat milk, a second time, by selling undivided interests in her goats, rather than renting them); WIS. STAT. § 97.24 (2)(d)

do specifically allows the practice.[89] In states where cow share programs are illegal, some consumers have taken the unusual step of buying into farm businesses to avoid legal barriers to raw milk access.[90]

4. *Marketing as Pet Food*

There is also a pet food loophole that some raw milk marketers have exploited. In most states, there are no prohibitions against selling raw milk as pet food. In Florida, both raw milk sales and cow share programs are illegal, but the sale of raw milk for animal consumption is not specifically regulated.[91] Alaska, Colorado, and North Carolina also specifically allow raw milk to be sold as pet food,[92] but require raw milk to be dyed before being marketed as pet food to discourage human consumption; Georgia is currently considering such a measure.[93] Idaho directs its department of agriculture to dye all milk deemed unfit for human consumption.[94]

(2008) (allowing on-farm sales of raw milk directly to consumers), WIS. ADMIN. CODE ATCP § 60.235 (2008) (defining incidental sale as not including one "made in the regular course of business, or is preceded by any advertising, offer or solicitation made to the general public through any communications media" and allowing on-farm distribution of raw milk to "an individual who has a bonafide ownership interest in the milk producer"); Wisconsin Department of Agriculture, Trade and Consumer Protection, Harsdorf Signs Raw Milk Order; Cow-Share Sales Ruled Illegal (Nov. 4, 2002), http://www.datcp.state.wi.us/press_release/result.jsp?prid=1182 (in 2002, the Wisconsin Secretary of Agriculture signed an order that made cow-share agreements illegal, but farm-share programs might not be). *See also* Anita Weir, *Raw Milk Bill Debated*, THE CAPITAL TIMES, Sept. 8, 2005.

89. COLO. REV. STAT. § 25-5.5-117 (2008).

90. *See, e.g.*, Midvalleyvu Family Farm, LLC, http://www.midvalleyvu.com/Share Ownership.html (last visited Sept. 8, 2008).

91. FLA. STAT. § 502.091 (2008); FLA. ADMIN. CODE ANN. r. 5D-1.001 (2008).

92. ALASKA ADMIN. CODE tit. 18, § 32.060(2) (2008) (requiring a label for raw milk sold as pet food that reads "FOR ANIMAL FOOD NOT FOR HUMAN CONSUMPTION" in three inch letters and dyed a "finely powdered charcoal" or other approved food coloring); COLO. REV. STAT. § 25-1-114(i) (2008); 15A NC ADMIN. CODE 18A.1210(b) (2008); Suzanne Nelson, *A Gray Market for Raw Milk?*, INDYWEEK.COM, Sept. 26, 2007, http://www.indyweek.com/gyrobase/Content?oid= oid%3A160975.

93. Georgia Department of Agriculture, Notice is Hereby Given That the Georgia Department of Agriculture Will Consider the Adoption of Amendments to Rules Relating to the Georgia Feed Laws, Oct. 2, 2007, *available at* http://agr.georgia.gov/00/article/0,2086,38902732_ 39815994_92569439,00.html. *See also* Elizabeth Lee, *Hearing to Cover Raw Milk*, THE ATLANTA JOURNAL-CONSTITUTION, Oct. 5, 2007, at D3.

94. IDAHO CODE ANN. § 37-404 (2008).

IV. PRODUCTS LIABILITY FOR RAW MILK: STRICT PRODUCTS LIABILITY, WARRANTIES, NEGLIGENCE AND COMMON DEFENSES

Historically, potentially hazardous food products have been given additional scrutiny by courts[95] because they are apt to spoil and are not typically "designed" or "manufactured" in the same sense as textiles and other consumer products, but rather captured from nature by farmers and ranchers.[96] There are four legal theories that an injured person is likely to use to recover for damages from raw milk: (1) Negligence and negligence *per se*; (2) Strict products liability for manufacturing, design, and warning defects; (3) Breach of express or implied warranty; and (4) Misrepresentation (fraud).

Regardless of which legal theory applies, the plaintiff must show by a preponderance of the evidence that the raw milk was the source of the illness (i.e., they can establish that their injuries were caused by the raw milk), and that they are not barred from bringing a claim against the producer and/or vendor.[97] The reader should be aware that standards of proof and causation may present significant hurdles for plaintiffs in raw milk cases, but that is beyond the scope of this article.[98]

Product defect (manufacturing defect, defective design, and defective warning) and negligence (negligence and negligence *per se*) claims are rooted in tort law, while breach of warranty and misrepresentation are typically contract law claims. Each state may treat these claims somewhat differently, but generally speaking, most jurisdictions will hold producers strictly liable for manufacturing defects,[99] with a *de facto* negligence principle applying to injuries caused by de-

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95. For a thorough discussion of food liability claims, see Charles E. Cantú, *Fattening Foods: Under Products Liability Litigation is the Big Mac Defective?*, 1 J. FOOD L. & POL'Y 165 (2005). *See also* Koy v. City of Chicago, 104 N.E. 1104, 1107 (Ill. 1914) ("There is no article of food in more general use than milk; none whose impurity or unwholesomeness may more quickly, more widely, and more seriously affect the health of those who use it.").

96. Katharine Van Tassel, *The Introduction Of Biotech Foods to the Tort System: Creating a New Duty to Identify*, 72 U. CIN. L. REV. 1645, 1673 (2004).

97. *See, e.g.*, Richard C. Ausness, *Tell Me What You Eat, and I Will Tell You Whom to Sue: Big Problems Ahead for "Big Food"?*, 39 GA. L. REV. 839, 869-74 (2005).

98. This article focuses on substantive legal issues regarding raw milk. For a discussion of procedural issues, *see e.g.*, Drew L. Kershen, *Health and Food Safety: The Benefits of Bt-Corn*, 61 FOOD & DRUG L.J. 197, 225 n.168 (2006).

99. *See, e.g.*, Escola v. Coca-Cola Bottling Co. of Fresno, 150 P.2d 436 (Cal. 1944) (In 1944, the California Supreme Court greatly expanded liability for defective products via *res ipsa loquitor*. In a concurring opinion, Justice Traynor used four rationales to justify strict liability for products liability claims: (1) efficient deterrence; (2) burden of damages; (3) negligence; and (4) consumer expectations. In 1963, Justice Traynor's majority opinion in Greenman v. Yuba Power Products, Inc., 377 P.2d 897, 901 (Cal. 1963) applied the same logic and spurred the adoption of

sign and warning defects.[100] The typical principles governing negligence and negligence *per se* will apply, but some states limit products liability claims to those allowed by statutory provisions similar to the Uniform Commercial Code. These claims are discussed below in more detail.

A. *Negligence*

In the early 1900s, cases involving injuries from defective food established a special responsibility of food producers and vendors to the consumer.[101] This concept was initially known as "special implied warranty" and was based in contract law (privity of contract) and was normally just extended to the immediate purchaser of the food. Later, this duty was extended to include goods that are "likely to come into the hand of another, and to do harm if they are defective" and a duty to a third party who may be injured by the vendor's or buyer's conduct regardless of contractual relationship.[102]

The standard formula for a negligence is: (1) a legally-recognized duty to behave in a particular way to protect others from unreasonable risks of harm; (2) a breach of the duty; (3) a proximate cause relationship between the conduct and the injuries; and (4) injuries to the interests of another.[103] Negligence claims are relevant regardless of the type of statutory treatment of raw milk provided by the states.

The threshold inquiry in any negligence case against a raw milk provider would isolate the duties owed as a producer or vendor. Other jurisdictions interpret vendors and producers as insurers of the products' wholesomeness, liable for any deleterious conditions.[104] A dairy farmer or vendor of raw milk is required to use ordinary or reasonable care in production and maintenance, and provide

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strict products liability by the Restatement (Second) of Torts, Section 402A, and later adoption by most states).

100. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 1 (1998) clearly applies strict liability to manufacturing defects (stating one "who sells or distributes a defective product is subject to liability for harm to persons or property caused by the defect"). RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(b)-(c) (1998) applies a negligence (proof of fault) standard to warning and design defects (stating "reasonable alternative design . . . [or] reasonable instructions or warnings . . . renders the product not reasonably safe").

101. William L. Prosser, *The Assault Upon the Citadel (Strict Liability to the Consumer)*, 69 YALE L. J. 1099, 1104 (1960).

102. W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS 677, 682-83 (W. Page Keeton ed., 5th ed. 1984) (the landmark case in third party negligence for products is MacPherson v. Buick Motor Co., 111 N.E. 1050 (N.Y. 1916)).

103. *Id*. at 164-65.

104. *See, e.g.*, Gilbert v. John Gendusa Bakery, Inc., 144 So.2d 760 (La. Ct. App. 1962).

warning or notice of any deleterious condition.[105] Food containers often contain mandatory warning labels, which is the case for raw milk in some states. Although courts do consider the presence of these labels, they do not shield the producer or vendor from liability in negligence actions.[106]

All producers and vendors who engage in the business of furnishing raw milk for human consumption owe a duty of care to consumers to ensure the fitness of the products being sold.[107] A negligence action under products liability would point to the legal duty of a raw milk provider, and whether that provider exercised reasonable care in the producing, marketing, or selling of the raw milk.[108] The first question a court would tackle is determining the standard of care imputed on the producer. This requires assignment of blame.[109] A court would focus on the manufacturer's actions, neglect, or carelessness, and whether the defendant failed to exercise due care to prevent the product from harming the user and/or becoming defective. Potential errors in the handling and vending of raw milk include the use of contaminated milk, cross-contamination of wholesome and contaminated raw milk, poor personal hygiene by infected milk handlers, inadequate cleaning of equipment, inadequate temperatures for storage, insufficient assessments of a cow's health, failure to properly sanitize a facility, and other factors.[110]

Courts use an "ordinary care" standard to evaluate retail food vendor conduct.[111] This requires a vendor to use ordinary measures to ensure the food is without impurities or contamination. In *Hygeia Dairy Co. v. Gonzalez*, a Texas appeals court found that producers had a duty to disclose any diseases among the herd prior to the sale of any animal.[112] This duty may extend to dairy farmers in herd share schemes. Raw milk advocates and some law enforcement professionals consider herd-share programs to reduce liability to the dairy farmer, as the consumer is drinking milk from the cow owned in part by the consumer.[113] The

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105. *See, e.g.*, Sarah A. Kornblet, *Fat America: The Need for Regulation Under the Food, Drug, and Cosmetic Act*, 49 ST. LOUIS U. L.J. 209, 214-15 (2004).

106. *See* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 4 cmt. e (1998).

107. *See* 3 JOHN F. VARGO, PRODUCTS LIABILITY PRACTICE GUIDE § 43.02 (1994). *See also* Rozumailski v. Phila. Coca-Cola Bottling Co., 145 A. 700 (Pa. 1929).

108. *See* JEAN C. BUZBY ET AL., U.S. DEP'T OF AGRIC., PRODUCT LIABILITY AND MICROBIAL ILLNESS 36 (2001).

109. *Id*. at 34.

110. *Id*. at 4.

111. *See* Green v. Wilson, 105 S.W.2d 1074 (Ark. 1937).

112. Hygeia Dairy Co. v. Gonzalez, 994 S.W.2d 220, 223 (Tex. App. 1999).

113. Jim R. Schwiesow, *Government Storm Troopers and Our Milky Ways*, NEWSWITHVIEWS.COM, Dec. 12, 2006, http://www.newswithviews.com/Schwiesow/jim9.htm (stating that herd share programs provide more liability protection since the animal technically belongs to the consumer).

question of duty then turns on the foreseeability of harmful consequences, which is the underlying basis for negligence.

Another hurdle that a consumer may face is establishing that the spoiled or contaminated milk was the proximate cause of their injury. In some cases, the courts will look to medical testimony to evaluate other potential causes of an illness.[114] In *English v. Louisiana Creamery, Inc.*, the court denied a plaintiff's negligence claim for injuries to her child allegedly caused by unwholesome milk.[115] Doctors testified that the child was possibly anemic, dehydrated, or suffered from a cold.[116] To hold the producer or distributor liable for damage caused by unwholesome raw milk, it must also be shown that the raw milk was unwholesome when the milk was opened.[117]

Courts use one of two tests to determine causation — the *sine quo non* or "but for" test and the "substantial factor" test.[118] The "but for" test requires that the injuries would not have occurred but for the action in question, while the "substantial factor" test requires that the action was a substantial factor in the injuries.[119] Food products liability claims typically suffer from a lack of an established connection between the injured party and a particular producer. Commodities like corn and milk are typically collected from numerous producers, graded and then stored collectively. One contaminated truckload can spoil the whole lot. It can be difficult to determine which producer is to blame for the contamination.[120] In response, some courts have recognized "enterprise liability," which allows an injured party to sue an industrial group and its members.[121] Dairy cooperatives and trade associations do not currently allow raw milk to be marketed to the end consumer, and most raw milk sales are conducted on-farm, marketed directly to consumers, or made available via animal share programs. It is highly

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114. English v. La. Creamery, Inc., 181 So. 2d 800, 802 (La. Ct. App. 1965).

115. *Id.* at 804.

116. *Id.* at 803-04. *See also* Ryan v. Galveston Model Dairy, 473 S.W.2d 536 (Tex. Civ. App. 1971) (rejecting negligence claim due to the plaintiff's inability to establish a date of purchase for an unwholesome container of chocolate milk).

117. *See* Bowman v. Woodway Stores, Inc., 177 N.E. 727 (Ill. 1931) (A negligence claim for an infant's illness allegedly caused by unwholesome milk was denied. The plaintiffs failed to establish that the milk caused the infant's illness. Physicians testified that he had been dehydrated, apparently anemic, and suffered from a cold and a possible virus, and that spoiled milk was the least probable cause of his condition).

118. *See generally* Ausness, *Tell Me What you Eat*, *supra* note 97, at 869-73.

119. *Id.* at 869.

120. David A. Fischer, *Products Liability — An Analysis of Market Share Liability*, 34 VAND. L. REV. 1623, 1625 (1981) (discussing the problems associated with proving liability in generic drug production).

121. *See, e.g.*, Hall v. E.I. Du Pont De Nemours & Co., 345 F. Supp. 353 (E.D.N.Y. 1972) (holding a trade association may be liable for creating inadequate labels for explosives).

unlikely that an injured party would find a trade association to hold liable. Another possible mechanism for establishing causation is the doctrine of market share liability. This allows a plaintiff to hold all of the producers of a generic product liable according to market share.[122]

Vendors are usually not liable under negligence for "latent defects" in the products, unless they were in a good position to have tested the product for contaminants. Food marketers and vendors are expected to use "reasonable care" to inspect their wares if there is a feasible procedure (does not destroy the product) and they failed to use it.[123] This does not include opening a sealed container to make the inspections.

Generally, the producer has a duty to warn where: (1) the product is dangerous; (2) the producer does or should know of the danger; (3) the danger exists when the product is used in the usual and expected manner; and (4) the danger is not obvious or well known to the user.[124] Simply providing any warning at all will not suffice to absolve a producer or vendor of liability. The warning must be adequate in function and wording to relieve or reduce liability.[125] In a negligence action, there is a distinction between the liabilities and duties assumed by a vendor compared to that of a raw milk producer.[126] One major difference is state permitting requirements.[127] While any deleterious condition found in raw milk may potentially trace back to an act or omission by the producer, a negligence cause of action hinges on whether the act or omission deviates from the standard of care. Ultimately, a plaintiff may only present an action as permitted by the limitations in each state's product liability statute.[128]

When raw milk is sold to consumers for pet or human consumption, a warning or disclaimer typically accompanies the product. In the presence of state required disclaimers, a raw milk vendor or producer may still be liable for injuries sustained by a consumer.[129] Once a duty to warn arises, an inadequate warn-

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122. Andrew R. Klein, *Beyond DES: Rejecting the Application of Market Share Liability in Blood Products Litigation*, 68 TUL. L. REV. 883, 886-87 (1994).

123. 5 AMERICAN LAW OF PRODUCTS LIABILITY 3D § 80:1 (2003).

124. Billiar v. Minn. Mining and Mfg. Co., 623 F.2d 240, 243 (2d Cir. 1980).

125. The courts look to the adequacy of the warning or notice, under a subjective test. 1 JOHN F. VARGO, PRODUCTS LIABILITY PRACTICE GUIDE § 6.03(4) (1994). *See also* Woeste v. Wash. Platform Saloon & Rest., 836 N.E.2d 52 (Ohio Ct. App. 2005) (holding oyster warning at bar was adequate).

126. Baldwin v. Burdick, 276 N.Y.S. 675, 677 (1935).

127. *Id*.

128. *See, e.g.*, FLA. STAT. § 95.031 (2008).

129. Suzanne M. Lambert, *1992 Survey of Books Relating to the Law: Reforming Products Liability by W. Kip Viscusi*, 90 MICH. L. REV. 1634, 1636-37 (1992).

ing, which is "no better than providing no warning at all," will not shield the manufacturer from liability.[130]

Standards of proof may have an impact on injury claims.[131] A consumer bringing a negligence action would not need absolute proof that conditions or procedures at the dairy or distribution warehouse were the cause of the contaminated raw milk.[132] The court in *Rost v. Kee & Chapell Dairy Co.* held that circumstantial evidence may be sufficient to establish negligence.[133] In *Rost*, a milk consumer sued for injuries from glass shards in her milk.[134] The court found Chapell Dairy Co. liable under the principles of *res ipsa loquitur*.[135] While not necessary in a negligence action, it carries the same effect by implicating the duty and conduct of a producer or vendor.[136]

B. *Negligence Per Se*

Negligence *per se* is triggered when the defendant violates a statute or regulation that was designed to prevent the type of harm suffered by the plaintiff. Violation of a statute governing the handling and/or sale of milk would trigger negligence *per se*. Once established, the defendant is liable for injuries regardless of how reasonable the defendant's actions.[137] This is particularly relevant given the number of states that have addressed raw milk sales by statute. All statutes governing raw milk sales refer to public health, making negligence *per se* easy to trigger in a state that forbids or strictly governs raw milk sales, or dictates the allowable conditions of the dairy animal's health and milk quality.[138] It is difficult to defend against a negligence *per se* claim. For example, while determination of adequacy for required labels on raw milk would be decided by a jury,

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130. AMERICAN LAW, *supra* note 123, at § 33:1.

131. *See* Daniel L. Rubinfeld & David E. M. Sappington, *Efficient Awards and Standards of Proof in Judicial Proceedings*, 18 RAND J. OF ECONOMICS, 308, 308-15 (1987).

132. Rost v. Kee & Chapell Dairy Co., 216 Ill. App. 497, 499 (Ill. App. Ct. 1920).

133. *Id*.

134. *Id*. at 497.

135. *Id*. at 499 (noting that r*es ipsa loquitur* is basically common sense knowledge drawn from our five senses, and applied to the physical world).

136. *See* Bonura v. Barq's Beverages of Baton Rouge, 135 So. 2d 338, 340 (La. Ct. App. 1961).

137. *See generally* Kristine Cordier Karnezis, Annotation, *Products Liability: Modern Cases Determining Whether Product is Defectively Designed*, 96 A.L.R.3d 22 (1979); Allan E. Korpela, Annotation, *Failure to Warn as Basis of Liability Under Doctrine of Strict Liability in Tort*, 53 A.L.R.3d 239 (1973).

138. *See* UTAH CODE ANN. §§ 4-3-1, -10, -14 (2008) (Allowing the sale of raw milk under certain conditions, including licensing and certain dietary, sanitary, and medical conditions before raw milk may be sold from a cow. However, this does not necessarily constitute a standard of care).

fact finders often assume that the warning was *per se* inadequate if the plaintiff was injured.[139]

C. *Strict Products Liability*

Strict liability "will impose liability . . . regardless of fault, and without consideration for the degree of care or caution" exercised by the producer or vendor,[140] and regardless of actual knowledge of the product's dangerous condition.[141] A successful strict products liability claim must prove that: 1) the product was defective when it left the producer's control; 2) the product was unreasonably dangerous when it left the producer's control; and 3) the defect was the proximate cause of the harm to the consumer.[142] While a plaintiff may bring a negligence claim for injuries caused by *any* type of product defect, strict liability will only apply to certain classes of product defects: (1) manufacturing defects, (2) design defects, and (3) warning defects. Each is discussed below in the context of raw milk. Other minor exceptions include, for example, that strict liability will apply to manufacturers and vendors of new or reconditioned products, but not services, and not if explicitly sold "as-is."[143] Also, some states have taken steps to reduce vendors' vulnerability to strict liability ("tort reform"). In these states, a plaintiff must prove negligence to recover from vendors, but not from producers.

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139. *See* Victor E. Schwartz and Russell W. Driver, *Warnings in The Workplace: The Need for a Synthesis of Law and Communication Theory*, 52 U. CIN. L. REV. 38, 54 (1983).

140. Phillip L. Rennerly, *Products Liability—A Source of Recovery*, 1987 ARMY LAW. 13, 16. *See also* RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL HARM (BASIC PRINCIPLES) § 20 (2001) (applying strict liability to abnormally dangerous activities); RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 1 (1998) (the definition of vendors and distributors does not include casual or occasional sales, but does include those who do not exclusively sell the defective product and those who are non-manufacturing vendors and distributors that did not cause the defect); RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 1 cmts. a, c, e (1998).

141. *See* UNITED STATES FOOD SAFETY SYSTEM, PRECAUTION IN U.S. FOOD SAFETY DECISIONMAKING: ANNEX II TO THE UNITED STATES' NATIONAL FOOD SAFETY SYSTEM PAPER, Mar. 3, 2000, *available at* http://www.foodsafety.gov/~fsg/fssyst4.html.

142. 63 AM. JUR. 2D *Products Liability* § 550 (2008) (noting that strict liability "is an independent cause of action that can be proved without regard to the Uniform Commercial Code's restrictions on breach of warranty actions"). *See also* RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 7 cmt. b(2) (1998) (Stating that some courts allow producers to introduce evidence of quality control to help determine "whether the product was, in fact, defective when it left [the producer's] hand supporting the defendant's contention that the food product was unadulterated at the time of sale." This may include test samples of milk for contaminants).

143. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY §§ 8, 19 (1998).

The theory of strict liability has its roots in criminal cases for the sale of adulterated down and raw milk[144] and was created to provide protection to consumers that were unable to recover under contract law-based breach of warranty claims. Dicta in the landmark California case *Greenman v. Yuba Power Products, Inc.* explains:

A manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being. Recognized first in the case of unwholesome food products, such liability has now been extended to a variety of other products . . . [R]ules defining and governing warranties that were developed to meet the needs of commercial transactions cannot properly be invoked to govern the manufacturer's liability to those injured by their defective products unless those rules also serve the purposes for which such liability is imposed. [145]

In justifying this treatment for commercial products, the Restatement (Third) of Torts focuses on the deterrence and incentive aspects of strict liability,[146] and the fact that the manufacturer is often in a better position than consumers or regulators to prevent harm.[147] However, some courts are willing to treat the occasional food vendor more leniently,[148] which may be the case for infrequent vendors of milk from small-scale dairies.

1. *Manufacturing Defect*

A manufacturing defect is defined as "a physical departure from a product's intended design" that "renders the product not reasonably safe."[149] From a products liability perspective, food products are generally treated the same as non-food products;[150] they are considered to have a manufacturing defect if they

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144. *See* Commonwealth v. Farren, 91 Mass. (9 Allen) 489 (1864); Ronald F. Wright & Paul Huck, *Counting Cases About Milk, Our "Most Nearly Perfect" Food, 1860-1940*, 36 LAW & SOC'Y REV. 51, 81 (2002).

145. Greenman v. Yuba Power Products, Inc., 377 P.2d 897, 900-01 (Cal. 1963).

146. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. a (1998).

147. *See, e.g.*, David Howarth, *Muddying the Waters: Tort Law and the Environment from an English Perspective*, 41 WASHBURN L.J. 469, 490 (2002) (discussing the relative information burdens of strict liability and negligence in environmental tort cases).

148. *See, e.g.*, Perfection Paint & Color Co. v. Konduris, 258 N.E.2d 681 (1970 Ind. App. LEXIS 365). *But see* Addeo v. Metropolitan Bottling Co., 241 N.Y.S.2d 120 (App. Term 1963) (placing food products into commerce acts as a representation about the quality of the products and triggers strict liability).

149. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 1 (1998).

150. *Id*. at § 7 (stating that "one engaged in the business of selling or otherwise distributing food products who sells or distributes a food product that is defective . . . is subject to liability for harm to persons or property caused by the defect . . . a harm-causing ingredient of the food

contain a "harm-causing ingredient" that "a reasonable consumer would not expect the food product to contain."[151] A common example of a manufacturing defect is an exploding beer bottle that was produced incorrectly, causing a flaw that made it unstable. In the raw milk context, it would be milk containing a contaminant that caused injury to the drinker.

a. Foreign-Natural Test

In a minority of jurisdictions, the foreign-natural test determines whether strict liability will attach. The foreign-natural test was created by the California Supreme Court in its *Mix v. Ingersoll Candy Co.* holding that a chicken bone did not make a chicken pot pie unfit for human consumption under the 1906 Uniform Sales Act that governed commercial transactions between buyers and vendors.[152] The court stated that:

> [D]espite the fact that a chicken bone may occasionally be encountered in a chicken pie, such chicken pie, in the absence of some further defect, is reasonably fit for human consumption. Bones which are natural to the type of meat served cannot legitimately be called a foreign substance, and a consumer who eats meat dishes ought to anticipate and be on his guard against the presence of such bones.[153]

However, the court went on to say that food with "a foreign substance, or an impure and noxious condition . . . or tainted, decayed, diseased, or infected meat and vegetables"[154] was unfit for human consumption. The court later applied the foreign-natural test in *Goetten v. Owl Drug Co.*, which held that a restaurant

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product constitutes a defect if a reasonable consumer would not expect the food product to contain that ingredient").

151. *Id*. at § 7 cmt. a (providing examples "such as a pebble in a can or the pre-sale spoilage of a jar of mayonnaise"). *See also* Cousineau McGuire, *National Survey of Food Liability: A Breakdown of Case Law and Statutes on a State-by-State Basis for Claims Relating to Food Liability*, COUSINEAU MCGUIRE CHARTERED, http://www.cousineaulaw.com/forum_series/forum_foodliability.htm (last visited Sept. 8, 2008) (only two states still apply only the foreign/natural test—Delaware and Virginia.); Lars Noah, *Managing Biotechnology's Revolution: Has Guarded Enthusiasm Become Benign Neglect?*, 11 VA. J.L. & TECH. 4 n.252 (2006) (Discussing the foreign-natural test, in which courts distinguish between "foreign" and "natural" objects in food that cause harm. Courts apply strict liability for "foreign" matter found in food (e.g., a piece of metal in a can of spinach), but not for failure to remove a naturally-occurring object (e.g., bone fragments in chicken soup)).

152. Mix v. Ingersoll Candy Co., 59 P.2d 144, 148 (Cal. 1936).

153. *Id*.

154. *Id*.

patron could recover when injured by glass served in chicken chow mein.[155] Contaminants like E. coli would likely be considered foreign despite occurring naturally in the cow and its environs. "Natural" substances typically refer to bones, feathers, skin and other substances that are natural to the preparation of the product served, but not mold, bacteria, or other contaminants except in very rare cases that do not include raw milk (e.g., Vibrio Vulnificus in raw oysters).[156]

The court's finding in *Mix* could also be interpreted as a two-prong foreign-natural and reasonable expectations test.[157] A later case clarified the two-prong test[158] as allowing recovery under two instances — when a foreign substance caused injury, or when a natural substance caused injury, but it was not common knowledge that the substance would be in the food.

b. Consumer Expectations Test

The "consumer expectations test" is the dominant test for manufacturing defects,[159] and until recently it was also the test most commonly used for design defect and warning defect cases as well.[160] For raw milk, the main focus of a

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155. Goetten v. Owl Drug Co., 49 P.2d 286 (Cal. Dist. Ct. App. 1935).

156. Mexicali Rose v. Superior Court, 822 P.2d 1292, 1301 n.5 (Cal. 1992) (defining "natural" to include bones and other substances "natural to the product served," but not mold, botulinous bacteria, rat flesh and cow eyes). *See also* Kilpatrick v. Superior Court 11 Cal. Rptr. 2d 323 (Cal. Ct. App. 1992). (holding that *Vibrio cholerae* is a foreign substance to raw oysters despite its presence in their natural habitat); Claxton Coca-Cola Bottling Co. v. Coleman, 22 S.E.2d 768 (Ga. Ct. App. 1942) (examining kerosene in Coke); Cooper v. Borden, Inc., 709 So. 2d 878 (La. Ct. App. 1998) (examining penicillin in milk); Prejean v. Great Atl. & Pac. Tea Co., 457 So. 2d 60, 61 (La. Ct. App. 1984) (examining rotten roast); Swift & Co. v. Wells, 110 S.E.2d 203, 204 (Va. 1959) (examining staphylococci in pork).

157. Evart v. Suli, 259 Cal. Rptr. 535, 539 (Cal. Ct. App. 1989).

158. *Id.*

159. *See* Tiderman v. Fleetwood Homes of Wash., 684 P.2d 1302, 1305 (Wash. 1984) (defining a product defect as when the product is more dangerous than the ordinary consumer would expect).

160. Richard W. Wright, *The Principles of Product Liability*, 26 REV. LITIG. 1067, 1068-70 (2007) (discussing section 402A of the Restatement (Second) of Torts, and noting that it followed a consumer expectations test and strict liability for all products defects, making no distinction between manufacturing, design, or warning defects). *See also* RESTATEMENT (SECOND) OF TORTS § 402A (1965) (Applying a strict liability standard to manufactured products, whether for manufacture defect, design defect, or warning defect. 402A came to be known as strict liability to the consumer for defective products, with an exception for unavoidably dangerous products); George W. Conk, *Is There a Design Defect in the Restatement (Third) of Torts: Products Liability?*, 109 YALE L.J. 1087, 1091-92 (2000) (Pointing out that the first draft of section 402A only included strict liability for food products for human consumption, a later draft included all "products intended for intimate bodily use," and the final draft included all products. The consumer expectations test is still the dominant test).

manufacturing defect claim would be whether a harmful contaminant was an element that the consumer would reasonably expect to be in the product.[161] Courts typically consider the relevant context of consumption[162] — if the ordinary consumer is aware of any naturally-occurring, potentially unhealthy characteristics of raw milk, these characteristics do not necessarily make the product defective. For example, tobacco, alcohol, raw seafood, and butter are not considered defective despite their inherent danger because the public is sufficiently aware of their potential harm.[163]

One early application of the consumer expectations test is *Bonenberger v. Pittsburgh Mercantile Co*., in which the Supreme Court of Pennsylvania refused to hold as a matter of law that a sharp oyster shell in a can of oyster soup was reasonably fit for human consumption.[164] Instead, the court held that it was a question of fact to be determined by the jury.[165] Pennsylvania was the first of many jurisdictions to explicitly reject the foreign-natural test in favor of the reasonable expectations test.[166]

Juries may consider a broad range of sources for evidence of consumer expectations, including FDA or state guidelines on milk handling, packaging, labeling, and warnings. There, they will find language to suggest that consumers may not be sufficiently knowledgeable or informed to understand the risks posed by raw milk. Unlike products that are well-known for containing potentially harmful ingredients, raw milk may be considered wholesome by most consumers. Juries in food products liability cases have consistently determined that, except for raw seafood, consumers did not reasonably expect bacterial contamination of foods and that these foods suffered from manufacturing defects.[167] Also, courts

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161. RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 7 cmt. b (1998).

162. *Id*. at § 7 cmt. b n.1. *See also* Clime v. Dewey Beach Enters., Inc., 831 F. Supp. 341, 350 (D. Del. 1993) (finding that it was a reasonable expectation that eating raw shellfish can carry the risk of disease and bacterial infestation, such as *vibrio septicemia*).

163. Pelman v. McDonald's Corp., 237 F. Supp. 2d 512, 531-35 (S.D.N.Y. 2003) (recognizing that expectations about food contents are ever-changing).

164. Bonenberger v. Pittsburgh Mercantile Co., 28 A.2d 913 (Pa. 1942). *See also* Leigh A. Aughenbaugh, *The Demise of the Foreign-Natural Test in North Carolina—Goodman v. Wenco Foods*, 16 CAMPBELL L. REV. 275, 287-89 (1994) (discussing Bonenberger v. Pittsburg Mercantile Co.).

165. Bonenberger v. Pittsburgh Mercantile Co., 28 A.2d 913, 915 (Pa. 1942).

166. *See, e.g.*, Betehia v. Cape Cod Corp., 103 N.W.2d 64 (Wis. 1960). *See also* Zabner v. Howard Johnson's, Inc., 201 So. 2d 824 (Fla. Dist. Ct. App. 1967); Goodman v. WencoFoods, Inc., 423 S.E.2d 444 (N.C. 1992).

167. *See, e.g.*, Rottman v. Krabloonik, Inc., 834 F. Supp. 1269 (D. Colo. 1993); Jackson v. Nestle-Beich, Inc., 589 N.E.2d 547 (Ill. 1992); Arbourgh v. Sweet Basil Bistro, Inc., 740 So.2d 186 (La. Ct. App. 1999); McGuinness v. Wakefern Corp., 608 A.2d 447 (N.J. Super. Ct. Law Div. 1991); Bennett v. Hannelore Enters., Ltd., No. CV-02-5082 (NGG), 2003 U.S. Dist. LEXIS 26083 (E.D.N.Y. Dec. 23, 2003).

have expressed a reluctance to allow products liability claims concerning raw foods when there is no reasonable method to screen for the bacteria, or the bacteria pose little threat to a typical healthy person,[168] but raw milk is unlikely to fall into these categories, both because there are simple and cost-effective methods of screening for bacteria, and because many milk drinkers are a vulnerable class of consumers—children and the elderly. Some raw milk producers have even advertised their products as being healthier than pasteurized milk.[169] This may create even higher, not lower, consumer expectations for raw milk.[170] Generally speaking, consumers in today's system of mass-market foods[171] assume their products will be safe. When the expectations are not met due to a manufacturing defect, courts apply strict liability.[172]

2. *Defective Design*

A design defect occurs when a product "conforms to its intended design [that] renders the product not reasonably safe."[173] The typical example of a design defect is a heavy piece of farm equipment lacking protective shields around fast moving parts.[174] Products that fail to perform "as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner" or

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168. Edwards v. Hop Sin, Inc., 140 S.W.3d 13, 16 (Ky. Ct. App. 2003) (holding that the ordinary consumer would not be aware of the grave risk from bacteria in oysters posed to those with compromised immune systems). *See also* Clime v. Dewey Beach Enters., 831 F. Supp. 341, 348 (D. Del. 1993).

169. *See* Consumers Union of U.S., Inc. v. Alta-Dena Certified Dairy, 6 Cal. Rptr. 2d 193, 194 (Ct. App. 1992) (noting that Alta-Dena promoted certified raw milk as having health benefits, including advertisements that touted raw milk's purity and stated that it was a good food for babies and ill people).

170. For a discussion of this with respect to corn, *see* Kershen, *supra* note 98, at 223 n.163.

171. Chryssa V. Deliganis, *Death by Apple Juice: The Problem of Foodborne Illness, the Regulatory Response, and Further Suggestions for Reform*, 53 FOOD & DRUG L.J. 681, 696-701 (1998) (noting several factors contribute to the increase in foodborne illnesses: (1) food industry centralization; (2) large-scale farming; (3) an increase in warehoused food that is sold in central locations; (4) large-scale transportation and the global marketplace; (5) a change in eating patterns that favors fresh fruits and vegetables; (6) poor worker and workplace sanitary practices; and (7) miscellaneous environmental factors, including the movement of animals and drug-resistant bacteria).

172. Stephen D. Sugarman, *Rethinking Tort Doctrine: Visions of a Restatement (Fourth) of Torts*, 50 UCLA L. Rev. 585, 608 (2002).

173. RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 1 cmt. a (1998) (stating that "design defects and defects based on inadequate instructions or warnings arise when the specific products conform to the intended design but the design itself, or its sale without adequate instructions or warnings, renders the product not reasonably safe").

174. *See, e.g.*, Lovick v. Wil-Rich, 588 N.W.2d 688, 689-90 (Iowa 1999).

include a "risk of danger inherent in the design which outweighs the benefits of that design" are considered to have design defects. The safety of raw milk may be the basis for a design defect claim. Courts apply either the consumer expectations test or a risk/utility test to defective design cases. Most jurisdictions no longer apply the consumer expectations test,[175] preferring a "risk-utility test" or a "reasonableness test" of a safer alternative design.[176] The consumer expectations test has several problems, particularly with third-party claims.[177]

By far, the dominant test used in design defect cases is the risk-utility test.[178] According to this test, juries will consider a number of factors to determine the overall social desirability of the product that injured the plaintiff. These factors may include the probability of danger, feasibility of design, financial cost of improving the design, and "adverse consequences" to the producer or consumer.[179] This approach is much like the cost-benefit analysis that an economist would use when examining policy changes.[180]

Recently, some courts have allowed juries to consider alternative safer designs when considering the risk and utility of a product, applying a negligence standard "reasonableness test" of the design.[181] According to this test, juries consider the several risks and benefits of the product that caused the harm, and those of a product with a safer, alternative design suggested by the injured party.[182]

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175. Wright, *supra* note 160, at 1068-70.

176. *Id*. at 1080-81 (Discussing this two-prong approach "Barker test." States following this test include California (Barker v. Lull Engineering, 573 P.2d 443 (Cal. 1978)), Alaska (Caterpillar Tractor Co. v. Beck, 593 P.2d 871, 884-85 (Alaska 1979)), Arizona (Dart v. Wiebe Mfg., Inc., 709 P.2d 876, 878-79 (Ariz. 1985)), Florida (Tran v. Toyota Motor Corp., 420 F.3d 1310, 1314 (11th Cir. 2005)), Hawaii (Ontai v. Straub Clinic & Hosp., Inc., 659 P.2d 734, 740 (Haw. 1983)), Illinois (Lamkin v. Towner, 563 N.E.2d 449, 457 (Ill. 1990)), Maryland (Phipps v. Gen. Motors Corp., 363 A.2d 955, 959 (Md. 1976)), New Jersey (Suter v. San Angelo Foundry & Machine Co., 406 A.2d 140, 150, 153 (N.J. 1979)), Ohio (Knitz v. Minster Machine Co., 432 N.E.2d 814, 818 (Ohio 1982)), Tennessee (Ray v. BIC Corp., 925 S.W.2d 527, 531, 533 (Tenn. 1996)), and Washington (Soproni v. Polygon Apartment Partners, 971 P.2d 500, 504-05 (Wash. 1999))).

177. Mary J. Davis, *Design Defect Liability: In Search of a Standard of Responsibility*, 39 WAYNE L. REV. 1217, 1236 (1993). *See also* Douglas A. Kysar, *The Expectations of Consumers*, 103 COLUM. L. REV. 1700, 1701 (2003).

178. George W. Conk, *Punctuated Equilibrium: Why Section 402A Flourished and the Third Restatement Languished*, 26 REV. LITIG. 799, 800 (2007).

179. Barker v. Lull Eng'g Co, 573 P.2d 443, 455 (Cal. 1978).

180. *See, e.g.*, Damian C. Adams & Donna J. Lee, *Estimating the Value of Invasive Aquatic Plant Control: A Bioeconomic Analysis of 13 Public Lakes in Florida*, 39 J. AGRIC. & APPLIED ECON. (SPECIAL ISSUE) 97 (2007).

181. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. i (1998). For a brief discussion of the negligence standard, see David G. Owen, *Philosophical Foundations of Fault in Tort Law*, *in* PHILOSOPHICAL FOUNDATIONS OF TORT LAW 215 (David G. Owen ed., 1995).

182. *See, e.g.*, Thibault v. Sears, Roebuck & Co., 395 A.2d 843, 846 (N.H. 1978). *See also* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY §2(b) (1998).

They examine whether the product could have reasonably been made safer by a better design when considering what the manufacturer knew or should have known about alternative designs.[183]

In some states, the concept of what the manufacturer "knew or should have known" has been expanded to include information that was available about alternative safer products *at the time of trial*—long after the product entered the stream of commerce. Still others use a foresight test (what the manufacturer should have know when the product was made), but shift the burden of proof to the plaintiff to show that the alternative safer design would have created a net utility improvement. In the ten years since the Restatement (Third) was published, few states have adopted this alternative safer design test[184] that requires the application of a foresight risk-utility test in all design defect cases and shifts much of the burden to the plaintiff, who must show that the proposed alternative design would have created a net utility improvement.[185] The test has been largely rejected by courts or legislatures in Connecticut, Florida, Kansas, Maryland, Missouri, Montana, New Hampshire, Wisconsin, and Illinois; it has been largely ignored or minimally applied in Alaska, California, Hawaii, New York, and Pennsylvania; and it has only been accepted in New Jersey, Iowa, and Texas.[186] States ignoring or refuting the Restatement (Third)'s approach generally apply the risk-utility test.[187] In Alaska, California, and Hawaii, plaintiffs may win if they succeed at either test,[188] and Arizona allows courts to determine which test will be applied in each case, with the risk-utility test applied in most cases.[189]

In jurisdictions where courts may apply the alternative safer design test, it may be favored given the limited number of alternative designs to consider.

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183. Aaron Arnold, Note, *Rethinking Design Defect Law: Should Arizona Adopt the Restatement (Third) of Torts: Products Liability?*, 45 ARIZ. L. REV. 173, 184 (2003) (stating that most jurisdictions consider only the information on safer alternative designs that was reasonably available to the producer when the product was designed, called the "foresight risk/utility test;" others apply the information that the manufacturer should have reasonably known at the time of trial—the "hindsight risk/utility test").

184. Conk, *Punctuated Equilibrium*, *supra* note 178, at 840-44 (providing examples of cases and a list of states' positions with regard to section 2(b)).

185. Arnold, *supra* note 183, at 186.

186. Conk, *Punctuated Equilibrium*, *supra* note 178, at 840-44.

187. *Id*. at 840-46 (discussing which states have applied the Restatement (Third)'s approach). *See also* 1 MARSHALL S. SHAPO, THE LAW OF PRODUCTS LIABILITY ¶ 9.15 (4th ed. 2001).

188. Arnold, *supra* note 183, at 184-85 (noting that Alaska, California, and Hawaii allow plaintiffs to pursue both tests independently, while in Arizona the court will determine which one of the two tests will apply). *See also* Martin Baker, A *Farewell to Arms: Risk/Benefit Litigation Against Gun Manufacturers in California After the Repeal of Statutory Immunity*, 6 CHAP. L. REV. 279, 289 (2003).

189. Arnold, *supra* note 183, at 184. *See also* Baker, *supra* note 188, at 289.

There is basically one—pasteurized milk. A risk-utility analysis of raw versus pasteurized milk would include some of the following factors: usefulness and desirability to the user and the public, the likelihood and severity of potential injury, the availability of a substitute product that is safer but satisfies the same needs, the ability of the producer to reduce the unsafe character without making the product too expensive, the user's ability to reduce danger by exercising due care, the user's awareness of the inherent dangers, and the producer's ability to handle the cost burden through liability insurance or price increases.[190] Raw milk producers have long claimed that raw milk has improved vitamin and calcium content, provides for better long-run health for its consumers, and tastes much better than pasteurized milk.[191] Such claims weigh in favor of raw milk. However, the relatively slight cost associated with pasteurization and the high risks of injury to children, pregnant women, and the elderly would weigh against raw milk.

Plaintiffs could also pursue a ruling that raw milk as a category is inherently dangerous if its inherent risks to society outweighs its benefits.[192] Courts and the Restatement (Third) have generally rejected product category liability for consumer products,[193] including alcohol, firearms, or fast food,[194] and although courts have stated that it is not possible to produce bacteria-free milk,[195] it is unlikely courts would extend category liability to raw milk.

3. *Defective Warning*

A product can be defective if the producer or vendor did not provide adequate warnings about its potential harms. Defective warning includes improper instructions or warnings to consumers about latent dangers,[196] such as conta-

190. Wright, *supra* note 160, at 1082 (listing the factors proffered by John Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 837-38 (1973), and expanded by other courts).

191. *See, e.g.*, Consumers Union of U.S., Inc. v. Alta-Dena Certified Dairy, 6 Cal.Rptr.2d 193, 194 (Ct. App. 1992). *See also* Marcia L. Headrick et al., *Profile of Raw Milk Consumers in California*, PUBLIC HEALTH REPORTS, Sept.-Oct. 1997, at 419; Organic Pastures Dairy Company, *Frequently Asked Questions*, http://www.organicpastures.com/faq.html (last visited Sept. 8, 2008).

192. Richard C. Ausness, *Product Category Liability: A Critical Analysis*, 24 N. KY. L. REV. 423, 432-40 (1997).

193. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. d (1998).

194. Ausness, *Tell Me What You Eat*, *supra* note 97, at 858-59.

195. Dade v. United States, 40 App. D.C. 94, 99-100 (D.C. Cir. 1913) ("Milk is a food product; and if found to be impure, it will be held to be 'adulterated' within the provisions of the act. There is evidence that it is impossible to produce raw milk which does not contain bacteria").

196. RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 1 (1998). *See also* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(c) cmt. i (1998) (". . . warnings must be provided for inherent risks that reasonably foreseeable product users and consumers would reasonably deem material or significant in deciding whether to use or consume the product").

minants in milk. According to the Restatement (Third), a product is defective if "the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings… and the omission… renders the product not reasonably safe."[197] This is a negligence standard[198] and a low threshold. Once it is established that the manufacturer knew or should have known of a particular risk or danger, the court will examine whether the product included adequate warnings. Given the number of states with legislative direction on raw milk and media coverage of milk-related outbreaks, it is likely that courts would find that raw milk producers and vendors should have known of the risks. Without the warnings, the product may be considered unreasonably dangerous.

Like defective design, courts apply either a consumer expectations or a risk-utility test to defective warning claims.[199] They consider several factors to determine the adequacy of warnings, centering around "the gravity of the risks posed by the product."[200] The presence of state-mandated language, such as Arizona's "raw milk [is] not pasteurized and may contain organisms injurious to your health," are one factor of warning's adequacy.[201] A warning, particularly for a special class of vulnerable people like children, can be deemed inadequate *despite its adherence to state law*. Arizona's warning only conveys that raw milk's organisms can be injurious to health, which courts might consider insufficient given the gravity of the risks posed by raw milk.

Courts are reluctant to favor defective warning claims when an ordinary consumer should have known of latent dangers, such as those from smoking,[202] raw seafood,[203] alcoholic beverages, and fast food.[204] Pet food allowances might provide some protection to producers and vendors, but they are responsible for foreseeable uses and misuse of their products, even when consumers violate ex-

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197. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(c) (1998).

198. Wright, *supra* note 160, at 1121-22. *See also id.* at §2 (1998) (design and warning defects merely requires reasonable care, while manufacturing defect liability will attach "even though all possible care was exercised in the preparation and marketing of the product").

199. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2(c) cmt. n (1998).

200. *Id*. at § 2(c) cmt. i.

201. *Id*. *See also* ARIZ. REV. STAT. ANN. § 3-606(C) (2008).

202. Am. Tobacco Co. v. Grinnell, 951 S.W.2d 420, 428 (Tex. 1997). *See also* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 rptr. n. IV pt. D cmt. J (1998) (stating that the "rule that no duty is owed to warn of obvious and generally known dangers is supported by an overwhelming majority of jurisdictions").

203. Edwards v. Hop Sin, Inc., 140 S.W.3d 13, 16 (Ky. Ct. App. 2003). *See also* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. j (1998).

204. Liriano v. Hobart Corp., 700 N.E.2d 303, 303 (N.Y. 1998). *See also* Pelman v. McDonald's Corp., 237 F. Supp. 2d 512, 541 (S.D.N.Y. 2003); Ausness, *Tell Me What You Eat*, *supra* note 97, at 860-61.

plicit warning labels.[205] Although an assumption of risk defense (see Section V for discussion) is more likely under these circumstances, raw milk vendors must nonetheless be wary of problems with relying on pet food exceptions for protection from liability claims. Also, courts will examine manufacture and design defects claims even if a reasonable warning was made.[206]

D. *Breach of Warranty*

Warranty claims were initially the only mechanisms of recovery for injuries caused by faulty products. Today, that is still the case for pure economic losses. Warranties are promises, claims, or representations made about the product's characteristics or performance. Breach of warranty is a contractual or commercial action focusing on whether the product conforms to the implied or expressed warranties provided at the time of purchase. The Uniform Commercial Code (U.C.C.) Article 2, which has been adopted at least in part by every U.S. state, except Louisiana,[207] governs the sale of goods and particularly deals with warranty claims. According to the U.C.C., a vendor is liable for harm caused by a product that did not conform to warranties and the product was not reasonably safe. Warranties of merchantability of commercial goods are found in the U.C.C., Article 2, §§ 2-313, 2-314, and 2-315. The U.C.C. does not provide a mechanism for strict products liability for product defects. In a handful of states, courts have interpreted the adoption of U.C.C. language as incompatible with strict products liability.[208] In these states, breach of warranty, negligence, and misrepresentation claims may be the only feasible mechanisms of recovering for injuries caused by defective products.

1. *Breach of Express Warranty*

An express warranty is created by *affirmative* statements of facts, promises, and even opinions (beyond mere puffery) provided by the vendor during the sales process.[209] This includes product packaging, salespersons' statements, and

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205. *See* Alan Calnan, *A Consumer-Use Approach to Products Liability*, 33 U. MEM. L. REV. 755, 756-58 (2003); Larue v. Nat'l Union Elec. Corp., 571 F.2d 51, 53 (1st Cir. 1978) (child injured riding vacuum).

206. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 2 cmt. c (1998).

207. Cornell University Law School, Uniform Commercial Code Locator (Mar. 15, 2004), http://www.law.cornell.edu/uniform/ucc.html.

208. 63 AM. JUR. 2D *Products Liability* § 534-36 (2008).

209. U.C.C. § 2-313 (2005) (stating that express warranties can be created by "(a) Any affirmation of fact or promise made by the seller which relates to the goods and becomes part of the basis of the bargain . . . (b) Any description of the goods . . . [or] (c) Any sample or model.").

advertisements. When material facts are untrue, an express warranty has been breached whether or not the vendor has used terms like "guarantee" or "warrant."[210] Initially, privity of contract was required for a breach of express warranty claim; but today it is sufficient that the warranty was created and that the plaintiff reasonably relied on it. In the case of raw milk, vendor and producer claims about the wholesomeness of raw milk would be considered an express warranty. For example, if a producer advertises raw milk as healthier than pasteurized milk, as some have done, that producer is vulnerable to liability for breach of an express warranty.[211]

2. *Breach of Implied Warranty*

Implied warranties are *ipso facto* warranties that are created via privity of contract, but are distinct and separate from any express contractual warranties that are part of the bargaining process.[212] Initially, courts applied the doctrine of *caveat emptor*[213] and did not recognize implied warranties. Today, the U.C.C. allows two kinds of implied warranties—implied warranty of merchantability and implied warranty of fitness for a particular purpose. Any product that enters into commerce includes an implied warranty of merchantability. This means that the product "is reasonably fit for the general purpose for which it is manufactured and sold."[214] For example, raw chicken is merchantable because its ordinary purpose is consumption after thorough cooking to kill bacteria and viruses. This warranty also includes reasonable safety. In the context of milk, it is merchantable if it meets acceptable safety standards and is fit for human consumption.

There are two commonly applied tests used to determine whether food products are merchantable. Not coincidentally, these tests are very similar to strict products liability tests. The most common test is the "reasonable expectations test" based on what an ordinary consumer might expect to be in the food.[215] The second test is the "foreign-natural test." Using this rule, consumers can recover for injuries caused by an unexpected foreign substance in the food (e.g., a

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210. *Id*. at § 2-313(3).

211. Consumers Union of U.S., Inc. v. Alta-Dena Certified Dairy, 6 Cal. Rptr. 2d 193, 194 (Ct. App. 1992).

212. U.C.C. § 2-313 cmt. 3 (2005).

213. Meaning "let the buyer beware."

214. Henningsen v. Bloomfield Motors, Inc., 161 A.2d 69, 76 (N.J. 1960).

215. *See generally* Jerry J. Phillips, *Consumer Expectations*, 53 S.C. L. REV. 1047 (2002).

nail in a can of spinach), but not for those caused by "natural" materials like salmonella in chicken.[216]

Implied warranties of merchantability extend to third parties. A vendor can be held liable for a consumer who is neither a purchaser or arguably cannot make an informed, reasonable choice about drinking raw milk. In *Welter v. Bowman Dairy Co.*, a father purchased milk that was contaminated with lead paint.[217] When his child drank the milk and got sick, the father sued, claiming a breach of implied warranty of merchantability. The court extended the implied warranty to the purchaser's daughter despite a lack of contract privity.[218]

An implied warranty of fitness for a particular purpose is created by the vendor if 1) the vendor is aware of the buyer's intended use of the product; and 2) the buyer relies on the vendor's judgment or skill in selecting a suitable product for that purpose.[219] In the context of milk, such a warranty would be created if the buyer told the vendor that she was looking for the safest milk possible because she had an immune deficiency.

A raw milk claim is much more likely to be based on a breach of an implied rather than express warranty. Raw milk vendors are particularly vulnerable to liability under breach of implied warranty of merchantability. Not all raw milk drinkers are well-informed, reasonable risk- takers. Also, with milk's historical emphasis on its consumption by children, milk vendors could arguably have foreseen the lack of some consumers' ability to assume an informed, reasonable risk. As noted in *Welter*, a child does not necessarily have control over what it consumes.[220] Courts may also prefer to place the risk with the producer rather than the consumer, who may be less informed of the risks.[221] An implied warranty is presumed unless the buyer clearly and unambiguously disclaims it in writing. Implied warranties also include situations when the vendor is aware that the buyer is relying on the vendor's skill or judgment to "select or furnish suitable goods"[222] (unless the warranty is expressly excluded with words such as "as-is").[223] In jurisdictions that apply the doctrine of implied warranty, a vendor is not

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216. *See, e.g.*, Koster v. Scotch Assoc., 640 A.2d 1225, 1228 (N.J. Super. Ct. Law Div. 1993). *See generally* Aughenbaugh, *supra* note 164, at 276.

217. Welter v. Bowman Dairy Co., 47 N.E.2d 739, 747 (Ill. App. Ct. 1943).

218. *Id*. at 745-47 (Reasoning that the health risks of unsound food products can be "so disastrous" that "public safety demands" the risk placed upon the vendor or producer, who is in a better position to ascertain the soundness of the food. Finally, the court reasoned that, in the case of canned food, the purchaser cannot determine the soundness of the food until the can is opened).

219. U.C.C. § 2-315 (2005).

220. Welter v. Bowman Dairy Co., 47 N.E.2d 739, 759 (Ill. App. Ct. 1943).

221. *See, e.g.*, Nelson v. W. Coast Dairy Co., 105 P.2d 76, 78 (Wash. 1940).

222. U.C.C. § 2-315 (2005).

223. *Id*. at § 2-316(3)(a).

absolved of fault by proving that they exercised due care.[224] Although often redundant to strict products liability claims, plaintiffs may proffer more than one theory of legal liability if allowed by the judge.

E. *Misrepresentation (or Fraud)*

Fraud and deceit claims were the earliest allowed by law against a vendor by a buyer of a defective product, particularly for economic loss.[225] Deceptive advertising claims, including omissions and false information, are the basis for a misrepresentation claim in tort.[226] Misrepresentation requires that the plaintiff establish reliance on the misrepresented fact.[227] False or deceptive advertising claims may be easy to prove, especially when based on a statutory violation.[228] For example, in *Consumers Union of U.S., Inc. v. Alta-Dena Certified Dairy*, Alta-Dena had long promoted its certified raw milk has having health benefits. Its advertisements promoted the raw milk's purity and as good for babies and people with illnesses.[229] Consumers Union claimed that Alta-Dena's raw milk advertising claims were false or misleading. Evidence at trial confirmed that certified raw milk was *less* safe than pasteurized milk, contained dangerous bacteria, and was "not produced under the strictest health standards in the industry" as advertised.[230] Numerous people became ill after drinking Alta-Dena's certified raw milk.[231] Claims that certified raw milk was nutritionally superior than pasteurized milk (e.g., raw milk allows thirty percent more absorption of calcium to pasteurized milk) were refuted by experts.[232] Also, claims about strict health standards were misrepresenting because lower bacteria counts found in certified raw milk did not distinguish beneficial from dangerous bacteria.[233] Additionally, Alta-Dena did not always comply with its own advertised health and safety stan-

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224. RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY § 1 cmt. a (1998).

225. J. Matthew Thompson, *Torts: Dutsch v. Sea Ray Boats, Inc.: A Policy Based Analysis of the Recovery of Economic Loss under Manufacturer's Products Liability in Oklahoma*, 47 OKLA. L. REV. 397, 400 (1994).

226. Ausness, *Tell Me What You Eat*, *supra* note 97, at 865.

227. Hitachi Credit Am. Corp. v. Signet Bank, 166 F.3d 614, 628 (4th Cir. 1999) (quoting Evaluation Research Corp. v. Alequin, 439 S.E.2d 387, 390 (Va. 1994)).

228. *See* Moin A. Yahya, *Can I Sue Without Being Injured?: Why the Benefit of the Bargain Theory for Product Liability is Bad Law and Bad Economics*, 3 GEO. J.L. & PUB. POL'Y 83, 93 (2005).

229. Consumers Union of U.S., Inc. v. Alta-Dena Certified Dairy, 6 Cal. Rptr. 2d 193, 194 (Ct. App. 1992).

230. *Id*. at 195.

231. *Id*.

232. *Id*. at 196.

233. *Id*. at 197.

dards.[234] The court concluded that Alta-Dena's false and misleading advertisements warranted the compulsory placing of a warning label on its certified raw milk products.[235]

V. DEFENSES TO RAW MILK LIABILITY CLAIMS

If the injured milk drinker successfully established the necessary elements of their claim, the raw milk producer or vendor has several potential defenses that reduce or avoid a damage award. These include (1) statutes of limitation and repose; (2) unavoidable danger; (3) plaintiff behavior defenses such as contributory negligence, comparative negligence, and assumption of risk;[236] and (4) other minor defenses.

A. *Statutes of Limitation and Repose*

Many states have statutes of limitation for products liability claims. If the lawsuit is not filed within a statutorily-specified time period after the injuries, the claims become invalid. Statutes of repose work like statutes of limitation, but they run from the production or sale of the product rather than the injury. Generally, these statutes run about ten years, but there is very little uniformity among states. Some exceptions may apply to minors,[237] or for injuries that are not immediately apparent—like exposure to asbestos. Recent scientific studies have indicated that the effects of food-borne illnesses may last for years or decades,[238] potentially complicating the analysis.

B. *Contributory and Comparative Negligence*

The doctrines of comparative and contributory negligence operate to reduce or dismiss defendant liability when the plaintiff could have avoided or reduced their injuries by acting reasonably.[239] Contributory and comparative negli-

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234. *Id*.

235. *Id*.

236. David G. Owen, *Products Liability: User Misconduct Defenses*, 52 S.C. L. REV. 1, 36-40 (2000).

237. Cynthia Alice Feigin, Note, *Statutes of Limitations: The Special Problem of DES Suits*, 7 AM. J.L. & MED. 91, 101-03 (1981).

238. Virginia Bioinformatics Institute, *Escherichia coli O157:H7*, May 15, 2004, http://pathport.vbi.vt.edu/pathinfo/pathogens/E.coli_O157H7.html (end-stage renal failure can onset years or decades after initial infection by E. coli).

239. Owen, *Products*, *supra* note 236, at 9-15. *See also* RESTATEMENT (THIRD) OF TORTS: APPORTIONMENT OF LIABILITY §§ 1-9, 25 cmt. a (2000) (noting a great deal of heterogeneity in state

gence allow the court to consider acts or omissions by the plaintiff that may have contributed to the injuries.[240] This common law defense to a claim based on negligence[241] applies to cases where plaintiffs have, through their own negligence, contributed to cause the damages they incurred as a result of defendants' negligence.[242]

Pure contributory negligence bars plaintiffs from damage awards if they failed to exercise due care. Only five states still allow the pure contributory negligence defense.[243] Comparative negligence is a partial defense that reduces the amount of damages that a plaintiff can recover based upon the degree to which the plaintiff's own negligence contributed to the cause of the damages.[244] States adopt primarily one of three forms of comparative negligence: pure comparative, 50%bar, and 51% bar.[245] Most jurisdictions have some form of comparative negligence that allows courts to reduce damage awards in proportion to the relative fault of the plaintiff.[246]

Several kinds of contributory and comparative negligence exist, including assumption of risk, misuse, and alteration. Assumption of risk occurs if the plaintiff used the harmful product with full knowledge and appreciation of the potential risks. The classic example is the consumer with liver disease who consumes raw oysters and becomes ill, or a consumer who eats raw pork and develops Trichinosis.[247] Misuse of a product is difficult to establish because as a general rule manufacturers have a duty to anticipate how consumers might misuse or alter the product. This may be the case even if adequate warnings were ignored,

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laws on apportioning liability, but that this doctrine is supported by the Uniform Comparative Fault Act, 12 U.L.A. 123 (1996)).

240. Job A. Sandoval, Annotation, *Retrospective Application of State Statute Substituting Rule of Comparative Negligence for that of Contributory Negligence* (§2) 37 A.L.R.3d 1438 (1971) (noting that there are numerous exceptions particular to each state).

241. Owen, *Products*, *supra* note 236, at 17-24.

242. *But see* Md. & Va. Milk Producers Coop. Ass'n v. Crowell Farms Inc., 102 F. App'x. 267, 270 n.3 (4th Cir. 2004) ("[c]ontributory negligence is not a proper defense in breach of implied warranty actions because such actions are regarded as ex contractu").

243. Only Alabama, Maryland, North Carolina, South Carolina, and Virginia recognize contributory negligence. 2 DAVID G. OWEN ET AL., MADDEN & OWEN ON PRODUCTS LIABILITY § 15:1 n.21 (3d ed. 2000).

244. *Id*. at § 15:1.

245. Pure comparative negligence allows a damaged party to recover even if it is ninety-nine percent at fault, although the recovery is reduced by the damaged party's degree of fault. The 50% (51%) bar rule means a damaged party cannot recover if she is 50% (51%) or more at fault.

246. Stuart Low & Janet Kiholm Smith, *Decisions to Retain Attorneys and File Lawsuits: An Examination of the Comparative Negligence Rule in Accident Law*, 24 J. LEGAL STUD. 535, 535-36 (1995).

247. *See* Trabaudo v. Kenton Ruritan Club, Inc. 517 A.2d 706 (Del. Super. Ct. 1986); Kilpatrick v. Superior Ct., 11 Cal. Rptr. 2d 323 (Cal. Ct. App. 1992).

but ignoring the warnings was reasonably anticipated, or if alteration was made too easy.

When this defense is asserted, the trier of fact must decide how much fault is attributable to the plaintiff's actions as compared to those of the defendants.[248] In the raw milk context, defendants may be able to show that plaintiffs were fully aware of the health risks (even though the ordinary consumer would not have been, and even if warnings were inadequate), yet consumed the product anyway. Pre-existing medical conditions may point to reckless behavior and contributory negligence by plaintiffs. If there are obvious risks taken by a purchaser of raw milk, and if it can be established that the product may contain certain bacteria that pose little threat to those with normal health, which cannot be screened or removed without disrupting the "raw" characteristics of the product, then a producer or vendor of raw milk could argue the court's reasoning in *Edwards*.[249] Also, courts would consider whether the raw milk had signs of spoilage. In *Walker v Hickory Packing Co.*, a customer brought an action to recover injuries caused by deleterious lard sold by a packing company.[250] The consumer claimed he became ill after eating biscuits made from the lard. When broken open, the biscuits had a strong foul odor. While the company was found at fault, the court barred recovery based on the customer's contributory negligence.[251]

Contributory negligence is not likely to provide much protection to vendors and producers of raw milk. Of the five jurisdictions with a pure contributory fault rule, none presently allow the sale of raw milk for human consumption. Also, except for assumption of risk, contributory negligence is not a defense to a strict products liability claim.[252] However, comparative negligence may provide some cover. If a producer of raw milk provides evidence that prior to the purchase, the consumer knew of the risk, it may reduce exposure to liability. Likewise, showing an inability of the dairy farmer or distributor to know or prevent the risk is not a defense to strict liability, but it may reduce their proportion of fault.[253] As a matter of public policy, holding producers and vendors strictly liable for the condition and quality of raw milk may best protect the public.[254]

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248. 2 OWEN ET AL., MADDEN, *supra* note 243, at § 15:1.

249. *See* Edwards v. Hop Sin, Inc., 140 S.W.3d 13 (Ky. Ct. App. 2003).

250. Walker v. Hickory Packing Co., 16 S.E.2d 668, 669 (N.C. 1941).

251. *Id*. at 670.

252. 2 OWEN ET AL., MADDEN, *supra* note 243, at § 15:1.

253. *See* Hunt v. City Stores, Inc., 387 So. 2d 585, 588 (La. 1980).

254. *See, e.g.*, Niemann v. Grand Cent. Mkt., Inc., 337 P.2d 424 (Utah 1959). *See* Kelley v. R.G. Industries, Inc., 497 A.2d 1143 (Md. 1985) (imposing liability for bystander injury upon the sellers of Saturday Night Special handguns despite intervening criminal acts).

C. *Other Minor Defenses*

Several minor defenses may reduce or eliminate the defendant's liability. When another party's intervening, unforeseeable negligent acts cause the injuries, the defendant's liability for negligence may be eliminated. Criminal acts are typical examples of third-party intervention.[255] Damages under strict liability may also be limited to foreseeable damages suffered by foreseeable plaintiffs in some states.[256] If the dairy farmer sells raw milk to an individual who is believed to understand the risks of raw milk, in most jurisdictions that farmer may not be liable via strict products liability for other foreseeable consumers.[257] Damages may also be limited to compensatory damages[258] without a showing of "fraud . . . or that the defendant acted willfully, or with such gross negligence as to indicate a wanton disregard of the rights of others."[259] Also, vendors and producers of products that are unavoidably unsafe will not be held strictly liable. It is highly unlikely that raw milk would be deemed unavoidably unsafe given pasteurization techniques that are low cost and widely accepted by the dairy industry.

As a result of the available defenses, injury claims, even in strict liability, are usually unsuccessful in foodborne illness cases.[260] The jurisprudential issues, potential defenses, and limitation statutes pertaining to raw foods and strict liability make it the least likely product liability action to prevail.[261] Still, raw milk liability poses a risk that vendors and producers should seriously consider.

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255. Robert F. Cochran, Jr., *"Good Whiskey," Drunk Driving, and Innocent Bystanders: The Responsibility of Manufacturers of Alcohol and Other Dangerous Hedonic Products for Bystander Injury*, 45 S.C. L. REV. 269, 332 (1994) (noting that courts might impose liability for foreseeable criminal use).

256. *Id.* at 283 (Noting that foreseeable damages include those that an ordinary person would reasonably expect to occur. Foreseeable plaintiffs are plaintiffs that an ordinary person might expect to be potential plaintiffs).

257. *See, e.g.*, Phillips v. Cricket Lighters, 841 A.2d 1000, 1005 (Pa. 2003) (noting that for strict liability claims, a product only needs to be reasonably safe for its intended users, not all foreseeable users).

258. *In re* Salmonella Litig., 618 N.E.2d 487, 492 (Ill. App. Ct. 1993).

259. Smith v. Wade, 461 U.S. 30, 48 (1983). *See also* Del Muro v. Commonwealth Edison, Co., 464 N.E.2d 772, 778 (Ill. App. Ct. 1984).

260. BUZBY ET AL., *supra* note 108, at 108 (stating that courts recognize most foods as have naturally-occurring bacteria and cannot be made 100% risk free).

261. Jane Massey Draper, Annotation, *Liability for Injury or Death Allegedly Caused by Spoilage, Contamination, or Deleterious Condition of Food or Food Products* (§2a) 2 A.L.R. 5th 1 (1992).

VI. POLICY CONSIDERATIONS

There may be overarching social benefits of producing and selling raw milk that courts should consider.[262] One could argue that drinking "natural" raw milk is a quasi-religious expression requiring first amendment protection[263] or that statutes limiting cow-share and lease programs unduly infringe upon the freedom to contract.[264] For example, there are numerous products prohibited by the FDA that offer a religious or commercial benefit, yet present a significant health risk.[265] The FDA banned kohl, a popular eye cosmetic used for ceremonies in Africa, India, Iran, the Middle East, and Pakistan, because it contains toxic amounts of lead.[266] Courts may also look to the international community for guidance. Despite the "unreasonable" risks, several countries authorize the sale of raw milk and related products.[267] While European or Australian standards regulating raw milk are not absolute justifications for protecting raw milk producers and vendors, they raise questions as to whether the risk associated with raw milk could be mitigated with government supervision in the United States. One major distinction between raw milk and the other raw foods like spinach, peanut butter and meats is the disparity in regulatory approaches by state governments.[268]

Also, some would argue that those consuming potentially dangerous raw milk, seafood, alcohol, or tobacco should not be allowed to shift the blame for

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262. *See, e.g.*, Sugarman, *supra* note 172, at 614-16 (suggesting five types of successful 'no duty' policy arguments: (1) a very well-functioning alternative justice system that makes tort remedies irrelevant or unwise; (2) administrative burdens of the litigation would be too great; (3) allowing liability would create perverse incentives that create more harm than good; (4) liability deprives the public of necessary goods and services; and (5) overarching social values may be trampled).

263. *See* Jerry Bergman, The Watchtower's Half-Century Crusade Against the Germ Theory, http://www.seanet.com/~raines/germ.html (in the 1920s, the Watchtower advised that drinking only raw milk, avoiding starch, and not eating from aluminum utensils would cure nearly all physical ills of humanity).

264. 16B AM. JUR. 2D *Constitutional Law* § 594 (2008) (while "freedom of contract" does not appear in the constitution, it is inferred from the Due Process Clauses of the Fifth and Fourteenth Amendments).

265. *See* OFFICE OF COSMETICS AND COLORS, U.S. FOOD AND DRUG ADMIN., KOHL, KAJAL, AL-KAHL, OR SURMA: BY ANY NAME, BEWARE OF LEAD POISONING, Oct. 16, 2006, http://www.cfsan.fda.gov/~dms/cos-kohl.html.

266. *Id*.

267. Council Directive 92/46/EEC, art. 1, 1992 O.J. (L268)EU 92/46/EEC: *Council Directive Laying down the Health Rules for the Production and Placing on the Market of Raw Milk, Heat-Treated Milk and Milk-Based Products*, June 16, 1992. *See also* Felicity Lunghusen, *Safety Spotlight on Raw Milk Products*, THE WEEKLY TIMES, Oct. 12, 2007, at 73.

268. Caroline Smith DeWaal, *Food Supply and Security: What Tragedy Teaches Us About Our 100 Year-old Food Laws*, 40 VAND. J. TRANSNAT'L L. 921, 923-24 (2007).

their decisions onto others. Raw milk drinkers contend that pasteurization would not be needed if milk is consumed from the same small group of cows because individuals repeatedly exposed to the microflora of a particular animal do develop some immunity.[269] This is an expression of a risk preference that perhaps courts should respect. Of course, if consumers do not act rationally, if they are making decisions based on incomplete information, or if there are broader costs born by society and not by the individuals involved, then this may not be the case. Typically, liability will fall with the party who is in the best position to examine the food and control the hazard. Tort theory assumes that manufacturers must be held responsible for insufficiently investing in product safety measures, and that these manufacturers will continue to do so if costs associated with their actions are externalized to society. Because bacteria and virus detection requires sophisticated tests that are outside of the reach of the common consumer, this would fall with the producer. If such measures were possible, perhaps this would change the characterization of the risk assumed by a purchaser.

VII. CONCLUSION

Raw milk consumers and vendors tout its benefits including improved quality (taste, nutrition, more "natural" product) and profits for small farms. Small dairies that struggle to compete against large scale industrial farms see this group of highly committed consumers as welcome saviors. Not only do they actively seek out the product, they are willing to pay a high premium for it. But the product is not without its risks – both to consumer and producer. Raw milk's potential risks are well established; it can lead to disease outbreaks that trigger legal liability and ruin, rather than help, small dairies.

The existing sieve structure of federal and state milk regulation provides incomplete protection of both the raw milk consumer and producer or vendor. In many states raw milk sales are illegal, but more often raw milk sales are permitted, albeit greatly encumbered by regulatory hurdles. Since the highly-committed, well-informed adult customer is not raw milk's only potential consumer, dairies considering raw milk sales to the end consumer must be cautious. Populations of at-risk consumers, like those with compromised or underdeveloped immune systems, are highly susceptible to foodborne bacteria and may or may not be aware of the consequences of drinking raw milk.[270]

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269. Douglass Jr. & Vonderplanitz, *supra* note 27 (arguing that natural immunity to certain bacteria may be linked to raw milk consumption, which fell from 140 million to 16 million consumers from 1935-1975 while Salmonella illnesses rose significantly).

270. William T. Jarvis, *Raw Milk Can Be Deadly*, NATIONAL COUNCIL AGAINST HEALTH FRAUD, Dec. 23, 2003, http://www.ncahf.org/articles/o-r/rawmilk.html.

From a public policy perspective, prohibiting raw milk sales may or may not be justified. Consolidation of industry and mass distribution of food can cause large foodborne disease outbreaks without strict sanitary protocols. There is a growing trend toward great geographic distribution of food from few, central food processing centers.[271] People have generally increased eating away from the home; nearly 80% of food borne outbreaks occurred outside the home in the United States in the 1990s.[272] Other points of concern include public health infrastructures that may not be equipped to handle large-scale foodborne disease outbreaks, and possible contamination points in the handling, processing, transportation, and storage of raw milk.

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. While no safety protocol is absolute, many states view pasteurization as a cheap, effective, and proven additional bulwark against disease, with arguably negligible negative impact on the quality of milk. As the raw milk regulatory sieve and liability potential now stand, one can only warn *caveat emptor et venditor* . . . let both the buyer and vendor beware!

271. S.F. Altekruse et al., *Emerging Foodborne Diseases*, 3 EMERGING INFECTIOUS DISEASES 285, 288 (1997).

272. *Id*. (outbreaks associated with commercial establishments are better reported than in-home outbreaks).