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Submitted Electronically

Scott Gottlieb, Commissioner  
c/o Dockets Management Staff (HFA-305)  
Food and Drug Administration  
5630 Fishers Lane, Rm. 1061  
Rockville, MD 20852

**Re: Docket No. FDA-2018-N-3522, Use of the Names of Dairy Foods in the Labeling of Plant-Based Products**

Dear Commissioner Gottlieb:

The Animal Law Committee (“Committee”) of the New York City Bar Association writes in response to the FDA’s request for comments on the topic of the “Use of the Names of Dairy Foods in the Labeling of Plant-Based Products.”

As background, the New York City Bar Association is an independent non-governmental organization of more than 24,000 lawyers, law professors, and government officials, principally from New York City but also from throughout the United States and 50 other countries. Its Animal Law Committee is the first committee of its kind in the United States. In 2018, we presented a public program that explored issues relating to plant-based milks with an attorney who represents a plant-based food organization, an attorney who represents dairy farmers, and the past chair of the Committee.<sup>1</sup> We also submitted a comment to Congress opposing the DAIRY PRIDE Act<sup>2</sup> and a letter to the FDA in response to a request from 32 members of

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<sup>1</sup> Say It Ain’t Soy! The Labeling of Plant-Based Alternative Foods (Mar. 22, 2018), [https://www2.nycbar.org/mp3/Podcasts/media/say\\_it\\_aint\\_soy\\_-\\_the\\_labeling\\_of\\_plant-based\\_alternative\\_foods-3.22.2018.mp3](https://www2.nycbar.org/mp3/Podcasts/media/say_it_aint_soy_-_the_labeling_of_plant-based_alternative_foods-3.22.2018.mp3). (All websites cited in this letter were last visited on November 20, 2018.)

<sup>2</sup> Report on Legislation by the NYC Bar Animal Law Committee and the Consumer Affairs Committee, DAIRY Pride Act (Mar. 2017), [https://s3.amazonaws.com/documents.nycbar.org/files/201782-DairyPrideAct\\_FINAL\\_3.1.17.pdf](https://s3.amazonaws.com/documents.nycbar.org/files/201782-DairyPrideAct_FINAL_3.1.17.pdf). Attached in Appendix B.

Congress that the FDA investigate and take action against manufacturers of plant-based products labeled “milk.”<sup>3</sup>

## I. SUMMARY

The FDA is seeking comments to inform its “development of an approach to the labeling of plant-based products that consumers may substitute for dairy foods.” The Committee responds to the following questions in the docket: (1) Why do consumers purchase and consume plant-based foods that resemble dairy foods? and (2) What is consumers’ understanding of the amount or proportion of plant-based ingredient(s) relative to other ingredients in plant-based products?

We also make the following recommendations about an approach to the labeling of plant-based foods that consumers may substitute for dairy foods: (1) For plant-based milk products, require that labels disclose the proportion of plant source ingredients to water; (2) Prohibit the phrase “non-dairy” on products that include dairy; and (3) Require all food product labels to disclose the presence of an animal-derived ingredient. We hope that the information and recommendations that we provide will help the FDA develop regulations that provide consumers who purchase plant-based products the ability to make an informed choice about the products they are consuming.

Finally, although the FDA does not directly solicit information on whether plant-based milks should be prohibited from using the term “milk” in their product names—as some representatives of Congress have called for—we explain why such a step would be inappropriate.

## II. WHY DO CONSUMERS PURCHASE AND CONSUME PLANT-BASED FOODS THAT RESEMBLE DAIRY FOODS?

Consumers purchase and consume plant-based milks, ice cream, yogurt, and cheese instead of their animal-based counterparts for a variety of reasons, including because the consumers (a) are allergic to cow’s milk;<sup>4</sup> (b) are lactose intolerant;<sup>5</sup> (c) have adopted plant-

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<sup>3</sup> Letter from Lori Barrett, Chair, Animal Law Committee, and Carla Latty, Chair, Consumer Affairs Committee, to Dr. Stephen Ostroff, Acting Commissioner, FDA, re: Labeling of Plant-Based Milks (Feb. 24, 2017), [https://s3.amazonaws.com/documents.nycbar.org/files/20073225-PlantBasedMilksLabeling\\_FINAL\\_2.23.17.pdf](https://s3.amazonaws.com/documents.nycbar.org/files/20073225-PlantBasedMilksLabeling_FINAL_2.23.17.pdf).

<sup>4</sup> Cow’s milk is a “major food allergen” (21 U.S.C. § 321(qq)(1)) that can cause severe reactions such as wheezing, shortness of breath and less severe symptoms such as vomiting, diarrhea, hives, and eczema. It is one of the most common food allergies in U.S. children. Approximately 0.6–2.5% of preschoolers, 0.3% of older children and teens, and less than 0.5% of adults are allergic to cow’s milk. (E.g., Heidrun Hochwallner et al., *Cow’s Milk Allergy: From Allergens to New Forms of Diagnosis, Therapy and Prevention*, 66 METHODS 22 (Mar. 2014), [http://ac.els-cdn.com/S1046202313003034/1-s2.0-S1046202313003034-main.pdf?\\_tid=9fc54a30-dbf1-1e6-afd8-00000aacb361&acdnat=1484579054\\_d1c2edf9a82bc48c4f06be67e7de2524](http://ac.els-cdn.com/S1046202313003034/1-s2.0-S1046202313003034-main.pdf?_tid=9fc54a30-dbf1-1e6-afd8-00000aacb361&acdnat=1484579054_d1c2edf9a82bc48c4f06be67e7de2524); Christopher M. Warren et al., *The Epidemiology of Milk Allergy in US Children*, ANNALS OF ALLERGY, ASTHMA & IMMUNOLOGY 370 (May 2013), [http://pediatrics.aappublications.org/content/pediatrics/132/Supplement\\_1/S17.2.full.pdf](http://pediatrics.aappublications.org/content/pediatrics/132/Supplement_1/S17.2.full.pdf).) The current treatment for a cow’s milk allergy is the elimination of cow’s milk from the diet. (Hochwallner at 28.) For people who are allergic to cow’s milk, plant-based milks are often a reasonable alternative. Plant-based milks that are made from tree nuts and soy also contain allergens (21 U.S.C. § 321(qq)), but not all people who are allergic to cow’s milk are allergic to plant-based milks. See, e.g., *id.* (Soy milk induces allergic reactions in up to 15% of infants who are allergic to cow’s milk.).

based diets on the recommendation of their doctors and nutritionists or for health reasons;<sup>6</sup> and/or (d) prefer the taste of plant-based milks. In addition, some consumers of plant-based milk alternatives (e) have concerns about the welfare of cows and heifers on dairy farms;<sup>7</sup> (f) are concerned about the effect of dairy farms on the environment;<sup>8</sup> (g) belong to religions that restrict or prohibit the consumption of animal-derived foods; and/or (h) possess a moral conviction that it is unjust for humans to exploit non-human animals.<sup>9</sup> While reasons (a) through (d) are largely self-explanatory, the Committee elaborates on reasons (e) through (h) below to provide a better understanding of the myriad reasons why consumers buy plant-based milk substitutes.

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<sup>5</sup> People who are lactose intolerant are unable to fully digest the lactose (a sugar) in milk. (Mayo Clinic, Lactose Intolerance, Definition (Sept. 2, 2016), <http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/definition/con-20027906>.) As a result, they have uncomfortable symptoms such as diarrhea, gas, and bloating after consuming dairy products. (*Id.*) Unlike people who are allergic to dairy milk, lactose intolerant individuals may consume dairy products, but limiting intake of dairy products is one way to reduce symptoms. (Mayo Clinic, Lactose Intolerance, Diagnosis and Treatment (Apr. 21, 2018), <https://www.mayoclinic.org/diseases-conditions/lactose-intolerance/diagnosis-treatment/drc-20374238>.)

<sup>6</sup> *E.g.*, Thomas Campbell, T. Colin Campbell Center for Nutrition Studies, *How to Get Calcium Without Dairy* (Dec. 12, 2014), <http://nutritionstudies.org/how-to-get-calcium-without-dairy> (suggesting that plant-based sources of calcium are strongly preferable to cow's milk, for which health problems may be attributable); MM Tan et al., *A Case-Control Study of Breast Cancer Risk Factors in 7,663 Women in Malaysia*, PLOS One (Sept. 14, 2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6138391/pdf/pono.0203469.pdf> (In a study of 7,663 Malaysian women, "[t]hose who consumed one cup or more soymilk per week and soy products once or more per week had 75% and 60% reduction in breast cancer risk"); M. Sakuma et al., *Soy milk Intake has Desirable Effects on Phosphorus and Calcium Metabolism*, 62 J. CLIN. BIOCHEM. NUTR. 259 (May 2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5990409/pdf/jcbtn17-79.pdf> ("our data suggest that calcium-fortified soymilk may be effective for maintaining vascular and bone health"); Barry Manumbu, Soy milk has similar benefits to dairy products in reducing the risk of osteoporosis among postmenopausal women, study shows, Loma Linda University School of Public Health (Feb. 8, 2012), <https://publichealth.llu.edu/adventist-health-studies/videos-and-media-reports/soy-milk-benefits-osteoporosis>; B.K. Mital & K.H. Steinkraus, *Fermentation of Soy Milk by Lactic Acid Bacteria, A Review*, 42 J. OF FOOD PROTECTION 895 (Nov. 1979), <http://jfoodprotection.org/doi/pdf/10.4315/0362-028X-42.11.895> ("Since the protein content of soy milk is similar to that of cow's milk, it can contribute to infant and child nutrition . . .").

<sup>7</sup> *E.g.*, Woodstock Farm Sanctuary, *Cows for Dairy*, <http://woodstocksanctuary.org/learn/animals-used-for-food/cows-for-dairy> (summarizing some of the common concerns that consumers have about animal welfare on dairy farms).

<sup>8</sup> *E.g.*, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ANIMAL PRODUCTION AND HEALTH DIVISION, GREENHOUSE GAS EMISSIONS FROM THE DAIRY SECTOR (2010), <http://www.fao.org/docrep/012/k7930e/k7930e00.pdf> ("The global dairy sector contributes 4.0 percent to the total global anthropogenic GHG [greenhouse gas] emissions"); GRAIN, Big Meat and Dairy's Supersized Climate Footprint (Nov. 7, 2017), <https://www.grain.org/article/entries/5825-big-meat-and-dairy-s-supersized-climate-footprint>; Beth Gardiner, *How Growth in Dairy Is Affecting the Environment*, N.Y. TIMES (May 1, 2015), <https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html>; Steven M. Wise, *Farm Animals and Justice*, 3 PACE ENV'TL L. REV. 191, 218-19 (1986).

<sup>9</sup> See generally the website of the American Vegan Society at [www.americanvegan.org](http://www.americanvegan.org); the website of the Peace Advocacy Network at <http://www.peaceadvocacynetwork.org>.

**a. Some Consumers Limit Their Consumption of or Do Not Consume Dairy Products because They Have Concerns about the Welfare of Cows and Heifers on Dairy Farms**

Some consumers limit their consumption of or do not consume dairy products because they have concerns about the welfare of cows and heifers<sup>10</sup> on dairy farms.<sup>11</sup> Some of these concerns relate to routine farming practices, including but not limited to the following:

- *Separating calves from mother cows at birth.* Cows are regularly impregnated throughout their lives because, in order to produce milk, cows must give birth.<sup>12</sup> In order to save cows' milk for human consumers, dairy farms routinely separate calves from their mothers within a few hours or days of birth, which can cause stress and mental suffering to the cow and her calf.<sup>13</sup> In 1947, the founder of the Vegan Society remarked, "[T]he use of milk must be a greater crime than the use of flesh-foods, since after all the exploitation of motherhood and calf killing the cow must face the slaughterhouse. Thus the dairy cow suffers far more than the bullock taken from the field and slaughtered."<sup>14</sup> This concern about cows and their calves, which was voiced over 70 years ago, still resonates today.<sup>15</sup>

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<sup>10</sup> "Heifer" refers to a young female bovine who has not yet borne a calf, whereas "cow" refers to a female bovine who has borne at least one calf. *E.g.*, Katie Woods, *How to Determine if Cattle are Bulls, Steers, Cows or Heifers*, FARM AND DAIRY (July 30, 2015), <https://www.farmanddairy.com/top-stories/how-to-determine-if-cattle-are-bulls-steers-cows-or-heifers/274534.html>. Throughout this letter, for the sake of simplicity, we use the term "cow" to refer to both cows and heifers kept on dairy farms, except when we make an express distinction.

<sup>11</sup> *E.g.*, COMAX FLAVORS, NOT MILKING IT 3 (July 2017), <https://cdn-a.william-reed.com/content/download/488645/7835666/version/1/file/Comax%20Not%20Milking%20It%20Non-Dairy%20Infographic%208-17.pdf> (In a study of 1,000 consumers of plant-based products, Comax Flavors found that Gen Y and Gen Z consumers were the biggest consumers of non-dairy products and were largely motivated by animal welfare concerns.); FREE FROM HARM, FACT SHEET, WHAT ABOUT HUMANELY-RAISED MILK AND DAIRY PRODUCTS? (2011), [https://freefromharm.org/wp-content/uploads/2011/05/FFH\\_Dairy\\_Facts\\_Brochureweb.pdf](https://freefromharm.org/wp-content/uploads/2011/05/FFH_Dairy_Facts_Brochureweb.pdf) (discussing animal welfare issues and dairy farms and plant-based alternatives to dairy products).

<sup>12</sup> Mark Kurlansky, *Inside the Milk Machine: How Modern Dairy Works*, MODERN FARMER (Mar. 17, 2014), <http://modernfarmer.com/2014/03/real-talk-milk>.

<sup>13</sup> *E.g.*, USDA, DAIRY CATTLE MANAGEMENT PRACTICES IN THE UNITED STATES, 2014 (Feb. 2016), [https://www.aphis.usda.gov/animal\\_health/nahms/dairy/downloads/dairy14/Dairy14\\_dr\\_PartI.pdf](https://www.aphis.usda.gov/animal_health/nahms/dairy/downloads/dairy14/Dairy14_dr_PartI.pdf); Jan Hultgren, *Key Issues in the Welfare of Dairy Cattle*, in ACHIEVING SUSTAINABLE PRODUCTION OF MILK: VOLUME 3, DAIRY HERD MANAGEMENT AND WELFARE (John Webster ed., 2016), <http://urn.kb.se/resolve?urn=urn:nbn:se:slu:epsilon-e-4533>; Lori Marino & Kristin Allen, *The Psychology of Cows*, 4 ANIMAL BEHAVIOR & COGNITION 474, 484 (2017), <https://dx.doi.org/10.26451/abc.04.04.06.2017>.

<sup>14</sup> THE VEGAN SOCIETY, RIPENED BY HUMAN DETERMINATION 6 (2014), <https://www.vegansociety.com/sites/default/files/uploads/Ripened%20by%20human%20determination.pdf>.

<sup>15</sup> Mary Bates, *The Emotional Lives of Dairy Cows*, WIRED (June 30, 2014), <https://www.wired.com/2014/06/the-emotional-lives-of-dairy-cows>.

- *Killing “spent” cows and their male calves.* Cows can live naturally for more than 20 years.<sup>16</sup> But after only three or four years, cows used by the dairy industry are killed for their meat<sup>17</sup> and many intensively fed cows who produce high amounts of milk are killed before the end of their first lactation.<sup>18</sup> When a cow gives birth to a male calf, he will be destined for meat production. Before he is killed, he is likely to suffer from painful and frightening procedures, such as being dehorned without analgesics<sup>19</sup> and being castrated.<sup>20</sup>
- *Denying access to pasture.* Most U.S. dairy farms do not give their cows access to the outdoors or they keep them on outdoor dry lots with little or no access to pasture.<sup>21</sup> Access to pasture is important to cow health, and studies have shown that it can reduce the incidence of mastitis, lameness, and foot and leg lesions.<sup>22</sup> (According to the USDA, roughly 20% of cows and 8% of bred heifers on U.S. dairy farms had a case of lameness during a year prior to the farms’ interview by the USDA.<sup>23</sup> Dairy cows frequently suffer painful health conditions, such as mastitis and hoof and leg problems.<sup>24</sup>)
- *Psychological harm caused by conventional farming practices.* Cows have “complex cognitive, emotional and social characteristics,” and dairy farms compromise their cognitive, emotional, and social needs and interests as sentient beings.<sup>25</sup> Moreover, they are exposed to distressful and unnatural conditions during transport and slaughter.<sup>26</sup>

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<sup>16</sup> AnAge entry for *Bos taurus*, AnAge Database of Animal Ageing and Longevity, [http://genomics.senescence.info/species/entry.php?species=Bos\\_taurus](http://genomics.senescence.info/species/entry.php?species=Bos_taurus).

<sup>17</sup> Kurlansky, *supra* note 12.

<sup>18</sup> Hultgren, *supra* note 13.

<sup>19</sup> Hultgren, *supra* note 13 (94% of dairy farms in the U.S. dehorn; only 18% use analgesics).

<sup>20</sup> *Id.*

<sup>21</sup> Christopher A. Wolf & Glynn T. Tonsor, *Cow Welfare in the U.S. Dairy Industry: Willingness-to-Pay and Willingness-to-Supply*, J. OF AGRICULTURAL AND RESOURCE ECONOMICS 164, 166 (May 2017), <http://www.waeonline.org/UserFiles/file/JARE42.2May20173Wolf164-179.pdf>; Hultgren, *supra* note 13.

<sup>22</sup> Hultgren, *supra* note 13.

<sup>23</sup> U.S. DEPT. OF AGRICULTURE, ANIMAL AND PLANT HEALTH INSPECTION SERVICE, VETERINARY SERVICE, DAIRY 2002 PART III: REFERENCE OF DAIRY CATTLE HEALTH AND HEALTH MANAGEMENT PRACTICES IN THE UNITED STATES, 2002 35 (2003), at [http://www.aphis.usda.gov/animal\\_health/nahms/dairy/downloads/dairy02/Dairy02\\_dr\\_PartIII.pdf](http://www.aphis.usda.gov/animal_health/nahms/dairy/downloads/dairy02/Dairy02_dr_PartIII.pdf).

<sup>24</sup> Hultgren, *supra* note 13.

<sup>25</sup> *E.g.*, Marino & Allen, *supra* note 13 at 474.

<sup>26</sup> *E.g., id.*; Ashenafi Damtew et al., *The Effect of long Distance Transportation Stress on Cattle: a Review*, 3 BIOMEDICAL JOURNAL OF SCIENTIFIC & TECHNICAL RESEARCH (Apr. 3, 2018), <https://biomedres.us/pdfs/BJSTR.MS.ID.000908.pdf>.

In addition to concerns about routine dairy farm practices, some consumers of plant-based milks are concerned about egregious conditions exposed in numerous videos and photographs of dairy farms shot by undercover investigators or as part of government inspections.<sup>27</sup> These videos and photographs have exposed filthy conditions and violence by handlers, sometimes resulting in criminal convictions and closure of dairy farms. For example, in Idaho's largest dairy operation, handlers were filmed beating cows with a cane, kicking and stomping on cows that had fallen in milking stalls, and dragging a downed cow by a chain around her neck; three of those handlers were charged with animal cruelty.<sup>28</sup> New Mexico's Winchester Dairy closed in 2014 after an undercover investigator filmed "workers using chains and metal wires to whip animals on their faces and bodies, using tractors to drag milk cows too weak to walk on their own, and electrically shocking the genitals of many animals to get them to move."<sup>29</sup> In 2017, in Florida, undercover video of two dairy farms showed handlers kicking cows in the face and beating them with metal rods, prompting a major supermarket chain to suspend purchases from the dairies;<sup>30</sup> two of the handlers were arrested for animal cruelty.<sup>31</sup> In 2017, the Oregon Department of Agriculture photographed cows on a dairy farm standing ankle-deep in their own waste.<sup>32</sup> In Wisconsin, two dairy farm workers were convicted of multiple counts of animal cruelty relating to treatment of cows in April 2014 after undercover video showed them kicking, whipping, beating and stabbing cows in the face and body.<sup>33</sup> There are more examples too numerous to list in this letter.

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<sup>27</sup> D.M. Weary & M. A. G. von Keyserlingk, *Public Concerns About Dairy-Cow Welfare: How Should the Industry Respond?*, 57 ANIMAL PRODUCTION SCIENCE 1201 (2017), <https://www.publish.csiro.au/AN/pdf/AN16680>.

<sup>28</sup> AP, *Idaho Workers Charged with Animal Cruelty at Bettencourt Dairies' Dry Creek Dairy*, N.Y. DAILY NEWS (Oct. 11, 2012), <http://www.nydailynews.com/news/national/watch-animal-cruelty-filmed-idaho-dairy-article-1.1180094>.

<sup>29</sup> John M. Glionna, *New Mexico Dairy Shuts Down After Undercover Activist Videotape*, L.A. TIMES (Dec. 20, 2014), <http://www.latimes.com/nation/la-na-dairy-farm-video-20141219-story.html>.

<sup>30</sup> David Fleshler, *Cow Abuse Videos Prompt Reforms by Dairy Industry Group*, SUN SENTINEL (Nov. 27, 2017), <http://www.sun-sentinel.com/news/florida/fl-reg-dairy-reforms-20171127-story.html>.

<sup>31</sup> Brittany Bernstein, *Dairy Workers Hit Cows with Metal Rods in Undercover Video. Police Make Arrests, Store Suspends Deliveries*, USA TODAY (June 7, 2018), <https://www.usatoday.com/story/news/nation-now/2018/06/07/florida-dairy-workers-hit-cows-metal-rods-undercover-video/680982002>.

<sup>32</sup> Molly Harbarger, *Oregon Settles with Boardman Mega-Dairy over Wastewater Overflows*, THE OREGONIAN (Mar. 22, 2018), [https://www.oregonlive.com/business/index.ssf/2018/03/oregon\\_settles\\_with\\_boardman\\_m.html](https://www.oregonlive.com/business/index.ssf/2018/03/oregon_settles_with_boardman_m.html).

<sup>33</sup> Katie Delong, *Animal cruelty: Two More Convictions Tied to Wiese Bros. Farm*, FOX6 (May 6, 2014), <http://fox6now.com/2014/05/06/two-more-connected-to-wiese-brothers-farm-convicted-of-animal-cruelty>.

**b. Some Consumers Do Not Consume or Limit Their Consumption of Dairy Products because They Have Concerns about the Effect of Dairy Farms on the Environment**

Some consumers do not consume, or limit their consumption of, dairy products because they have concerns about the effect of dairy farms on the environment.<sup>34</sup> Waste produced by large dairy farms impacts air pollution and air quality, water pollution, and climate change.<sup>35</sup> In the United States, manure from livestock is the largest source of ammonia emissions, which is an important atmospheric pollutant.<sup>36</sup> Dairies are responsible for about 1.3% of the United States' greenhouse gas emissions.<sup>37</sup> One cradle-to-grave life cycle assessment estimates that the cumulative greenhouse gas emission is 17.6 pounds of carbon dioxide emissions per gallon of milk consumed, with the largest contributors to such emissions being feed production for cows on dairy farms, enteric methane, and manure management.<sup>38</sup>

As of 2012, when the U.S. Department of Agriculture last published its Census of Agriculture, roughly half of the country's dairies have more than 1,000 cows,<sup>39</sup> and that number is likely to have increased due to evidence that dairy farms with 1,500 or more cows are more profitable.<sup>40</sup> Large dairies in particular face challenges disposing of vast amounts of waste. A 1,400-pound cow in freestall total confinement generates about 14 gallons of feces and urine each day; and together with milking wash wastes, the total waste is 2.5 cubic feet per cow per

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<sup>34</sup> COMAX FLAVORS, *supra* note 11 (In a study of 1,000 consumers, over a quarter of Gen X, Y, and Z consumers choose non-dairy products due to concerns about the environment).

<sup>35</sup> Letter from Christine Mott, Chair, Animal Law Committee, to the U.S. Environmental Protection Agency, re: Proposed rule concerning electronic reporting under the National Pollutant Discharge Elimination System 2 (Jan. 30, 2015), <https://www2.nycbar.org/pdf/report/uploads/EPACAFOsAnimalReport.pdf>, citing PEW COMMISSION ON INDUSTRIAL FARM ANIMAL PRODUCTION, ENVIRONMENTAL IMPACT OF INDUSTRIAL FARM ANIMAL PRODUCTION (2008) [https://www.pewtrusts.org/-/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/industrial\\_agriculture/pcifapenvimpactpdf.pdf](https://www.pewtrusts.org/-/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/industrial_agriculture/pcifapenvimpactpdf.pdf); PEW COMMISSION ON INDUSTRIAL FARM ANIMAL PRODUCTION, PUTTING MEAT ON THE TABLE: INDUSTRIAL FOOD ANIMAL PRODUCTION IN AMERICA (2008), [https://www.pewtrusts.org/~media/legacy/uploadedfiles/phg/content\\_level\\_pages/reports/pcifapfinalpdf.pdf](https://www.pewtrusts.org/~media/legacy/uploadedfiles/phg/content_level_pages/reports/pcifapfinalpdf.pdf); INDUSTRIAL FOOD ANIMAL PRODUCTION IN AMERICA: EXAMINING THE IMPACT OF THE PEW COMMISSION'S PRIORITY RECOMMENDATIONS, JOHNS HOPKINS CENTER FOR A LIVABLE FUTURE (Fall 2013), [https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/pdf/research/clf\\_reports/CLF-PEW-for%20Web.pdf](https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/pdf/research/clf_reports/CLF-PEW-for%20Web.pdf); FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, LIVESTOCK'S LONG SHADOW (2006), <http://www.fao.org/3/a-a0701e.pdf>.

<sup>36</sup> ROBERT PINDER ET AL., AMMONIA EMISSIONS FROM DAIRY FARMS: DEVELOPMENT OF A FARM MODEL AND ESTIMATION OF EMISSIONS FROM THE UNITED STATES (2018), <https://www.researchgate.net/publication/237792507>.

<sup>37</sup> C. Alan Rotz, *Modeling Greenhouse Gas Emissions from Dairy Farms*, 101 J. OF DAIRY SCIENCE 6675, 6675 (2018), [https://www.journalofdairyscience.org/article/S0022-0302\(17\)31069-X/pdf](https://www.journalofdairyscience.org/article/S0022-0302(17)31069-X/pdf).

<sup>38</sup> Greg Thoma et al., *Greenhouse Gas Emissions from Milk Production and Consumption in the United States: A Cradle-to-Grave Life Cycle Assessment Circa 2008*, 31 INT'L DAIRY J. (2013), <http://dx.doi.org/10.1016/j.idairyj.2012.08.013>.

<sup>39</sup> USDA, Dairy Cattle and Milk Production, 2012 Census of Agriculture (Oct. 2014), [https://www.nass.usda.gov/Publications/Highlights/2014/Dairy\\_Cattle\\_and\\_Milk\\_Production\\_Highlights.pdf](https://www.nass.usda.gov/Publications/Highlights/2014/Dairy_Cattle_and_Milk_Production_Highlights.pdf).

<sup>40</sup> Jim Dickrell, *Large Dairy Farms More Resilient*, DAIRY HERD MANAGEMENT (Jan. 2, 2018), <https://www.dairyherd.com/article/large-dairy-farms-more-resilient>.

day.<sup>41</sup> A farm with 1,500 cows would generate 75 cubic yards (or 67.5 tons) of waste per day and 27,375 cubic yards (or 24,637.5 tons) of waste per year. The EPA estimates that a dairy farm with 2,500 cattle produces a similar waste load to a city with a population of 411,000.<sup>42</sup> This amount of waste is challenging to dispose of, and runoff from dairy farms contributes to water pollution caused by nitrogen, phosphorus, and E.coli.<sup>43</sup> Several dairy farms have been sued or issued citations for violating laws intended to protect the public health from dairy farm waste runoff.<sup>44</sup> Many residents near large dairy farms complain about the odor.<sup>45</sup>

Transitioning toward more plant-based diets, including eliminating dairy product consumption, can reduce greenhouse gas emissions significantly while simultaneously increasing health.<sup>46</sup> Moreover, replacing dairy and other animal-derived foods with plant-based foods can significantly increase food security and food availability because plant-based replacement diets produce substantially more nutritionally similar food per acre of cropland.<sup>47</sup>

**c. Some Consumers Do Not Consume or Limit Their Consumption of Dairy Products because They Belong to Religions that Restrict or Prohibit the Consumption of Animal-Derived Foods**

Some consumers avoid dairy at certain times for religious reasons. For example, the Orthodox Church in America prohibits consuming dairy and other animal products on

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<sup>41</sup> EXTENSION, LIQUID MANURE STORAGE PONDS, PITS, AND TANKS (Oct. 27, 2015), <https://articles.extension.org/pages/15476/liquid-manure-storage-ponds-pits-and-tanks>.

<sup>42</sup> U.S. ENVIRONMENTAL PROTECTION AGENCY, RISK ASSESSMENT EVALUATION FOR CONCENTRATED FEEDING OPERATIONS 7 (2004), <https://nepis.epa.gov/Exe/ZyPDF.cgi/901V0100.PDF?Dockey=901V0100.PDF>.

<sup>43</sup> E.g., Jackie Wang et al., *Farming Activity Contaminates Water Despite Best Practices*, THE CALIFORNIAN (Aug. 15, 2017), <https://www.thecalifornian.com/story/news/2017/08/15/water-near-farms-often-contaminated-nitrates-coliform-bacteria/571000001>.

<sup>44</sup> E.g., Mateusz Perkowski, *State Slaps Lost Valley Farm with \$187,000 Fine*, CAPITAL PRESS (Oct. 27, 2018), <http://www.capitalpress.com/Dairy/20181016/state-slaps-lost-valley-farm-with-187000-fine>; Letter from State of Michigan Department of Environmental Quality to Terrehaven Farm, re: Violation Notice (Oct 2, 2018) (citing, among other violations, overflow of dairy farm waste from containment system), <https://nocafos.org/wp-content/uploads/2018/10/Terrehaven-Violation-Notice-10.2.2018-CAFO-inspection-7.31.2018.pdf>; Press Release, Hawaii Department of Health, Hawaii Department of Health Fines Big Island Dairy for Water Pollution Violations and Requires Additional Regulatory Measures to Ensure Protection of State Waters (May 5, 2017), <http://governor.hawaii.gov/newsroom/latest-news/doh-news-release-hawaii-department-of-health-fines-big-island-dairy-for-water-pollution-violations-and-requires-additional-regulatory-measures-to-ensure-protection-of-state-waters>.

<sup>45</sup> E.g., Beth Gardiner, *How Growth in Dairy Is Affecting the Environment*, N.Y. TIMES (May 1, 2015), <https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html>.

<sup>46</sup> Marco Springmann et al., *Analysis and Valuation of the Health and Climate Change Cobenefits of Dietary Change*, PNAS (Apr. 12, 2016), <http://www.pnas.org/content/113/15/4146.full.pdf>.

<sup>47</sup> Alon Shepon et al., *The Opportunity Cost of Animal Based Diets Exceeds all Food Losses*, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE U.S. (Mar. 26, 2018), <http://www.pnas.org/content/pnas/early/2018/03/20/1713820115.full.pdf>.



Wednesdays and Fridays.<sup>48</sup> The Orthodox Ethiopian Church's followers engage in a 40-day vegan fast prior to Christmas.<sup>49</sup> And other religions prohibit the consumption of dairy during religious fasts.<sup>50</sup> Some consumers avoid dairy and/or other animal products at all times because doing so is consistent with their religious ideals, even if their religion does not require it.<sup>51</sup> For such consumers, accidentally eating an animal-derived product can result in emotional stress and the guilt of committing a sin.<sup>52</sup>

**d. Some Consumers, Vegans, Do Not Consume Dairy Products because They Have a Moral Conviction that it Is Unjust for Humans to Exploit Non-Human Animals**

A significant number of Americans are vegans or vegetarians. According to a 2018 Gallup poll, five percent of Americans report being vegetarians, while three percent report being vegan.<sup>53</sup> The percentage of Americans that are vegans falls between the percentage of Americans

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<sup>48</sup> Orthodox Church in America, Orthodox Fasting, <https://oca.org/questions/dailylife/orthodox-fasting>.

<sup>49</sup> Gregory Warner, *A 40-Day Vegan Fast, Then, At Last, A January Christmas Feast*, NPR (Jan. 1, 2015), <https://www.npr.org/sections/thesalt/2015/01/01/373834051/a-40-day-vegan-fast-then-at-last-a-january-christmas-feast>.

<sup>50</sup> *Id.*

<sup>51</sup> Mark Oppenheimer, *Scholars Explore Christian Perspectives on Animal Rights*, N.Y. TIMES (Dec. 6, 2013), <https://www.nytimes.com/2013/12/07/us/exploring-christian-perspectives-on-animal-rights.html>; Charles Camosy, *Why all Christians Should go Vegan*, WASHINGTON POST (Jan. 5, 2017), [https://www.washingtonpost.com/posteverything/wp/2017/01/05/why-all-christians-should-go-vegan/?postshare=9371483625693074&tid=ss\\_fb-bottom&utm\\_term=.bced95051698](https://www.washingtonpost.com/posteverything/wp/2017/01/05/why-all-christians-should-go-vegan/?postshare=9371483625693074&tid=ss_fb-bottom&utm_term=.bced95051698) (“The Bible is clear, and early Christians understood it: Animals are meant to be our companions, not our food.”); Jeffrey Cohan, *Judaism and Veganism: Time for a Reunion*, TIKKUN (Apr. 18, 2016), <https://www.tikkun.org/nextgen/judaism-and-veganism-time-for-a-reunion>; Simon Rocker, *Rabbis call on Jews to Adopt a Vegan Diet*, JEWISH CHRONICLE (Sept. 27, 2017), <https://www.thejc.com/news/uk-news/rabbis-call-on-jews-to-adopt-a-vegan-diet-1.445042> (Rabbi David Wolpe, one of America's prominent Conservative rabbis, says “*Tza'ar ba'alei chayim*, not causing pain to another living creature, is a central principle of the Jewish tradition and we violate it every time we eat something that we know was factory farmed, was debeaked, declawed, was treated cruelly.”); Buddhist Monk Thich Nhat Hanh stated that being a vegan is important to reduce suffering caused to cows by dairy farms (*Why Vegan and not Vegetarian? Thich Nhat Hanh Answers the Question*, YouTube, <https://www.youtube.com/watch?v=0gwOzzGibsg>).

<sup>52</sup> A Hindu plaintiff in a class action against McDonald's restaurant said that when he learned that he had consumed beef tallow from McDonalds's French fries that he felt “sick in the morning every day, like I want to vomit. . . . Now it is always there in my mind that I have done this sin.” Laurie Goldstein, *For Hindus and Vegetarians, Surprise in McDonald's French Fries*, N.Y. TIMES (May 20, 2001), <https://www.nytimes.com/2001/05/20/us/for-hindus-and-vegetarians-surprise-in-mcdonald-s-fries.html>.

<sup>53</sup> RJ Reinhart, *Snapshot: Few Americans Vegetarian or Vegan*, GALLUP (Aug. 1, 2018), <https://news.gallup.com/poll/238328/snapshot-few-americans-vegetarian-vegan.aspx>.

who keep a kosher diet<sup>54</sup> and the percentage of Americans who have food allergies<sup>55</sup> — two groups whose interests are currently recognized by food labeling laws.<sup>56</sup>

Vegetarians do not eat foods that consist of or have been prepared with products consisting of the flesh of a living or dead animal (including farmed, wild or domestic animals, such as “livestock poultry, game, fish, shellfish, crustacea, amphibians, tunicates, echinoderms, molluscs and insects”).<sup>57</sup> Ovo-vegetarians do not consume dairy products in addition to other foods vegetarians avoid.<sup>58</sup> Vegans (sometimes referred to as “strict vegetarians” or “pure vegetarians”) abstain from eating food products derived from animals, using other animal-derived products such as leather and wool fabrics, using products tested on animals, and engaging in other practices involving the exploitation of non-human animals as far as is practicable.<sup>59</sup> Although the popularity of veganism has increased in recent years, the practice is nothing new. The original use of the word “vegetarian” in the 1830s had the same meaning as the word “vegan” today; in 1847 the term vegetarian expanded to include persons who consumed dairy and/or eggs.<sup>60</sup> In the 1940s, the term “vegan” was coined.<sup>61</sup> (In addition to referring to a person who follows a certain lifestyle, the term “vegan” also refers to foods that are suitable for vegans.)

Although there are various reasons why people abstain from animal products, moral beliefs are one of the leading motives for adopting vegetarian or vegan diets.<sup>62</sup> The moral beliefs that motivate people to choose a vegan lifestyle may be informed by traditional religious

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<sup>54</sup> Nicola Twilley, *When Jewish Law Met Processed Food*, THE ATLANTIC (July 26, 2016), <https://www.theatlantic.com/science/archive/2016/07/when-jewish-law-met-processed-food/493040> (2% of the population is Jewish and only a fraction keep kosher).

<sup>55</sup> Warren W. Acker et al., *Prevalence of Food Allergies and Intolerances Documented in Electronic Health Records*, 140 J. OF ALLERGY & CLINICAL IMMUNOLOGY 1587, 1588 (Dec. 2017), [https://www.jacionline.org/article/S0091-6749\(17\)30672-3/pdf](https://www.jacionline.org/article/S0091-6749(17)30672-3/pdf) (about 3.6% of Americans have food allergies).

<sup>56</sup> 21 C.F.R. § 101.29, Labeling of kosher and kosher-style foods; Food Allergen Labeling and Consumer Protection Act of 2004 (21 U.S.C. § 343(w)).

<sup>57</sup> E.g., Vegetarian Society, What is a Vegetarian? <https://www.vegsoc.org/definition>; see the definition of “animal” in the UNITED KINGDOM FOOD STANDARDS AGENCY, GUIDANCE ON THE USE OF THE TERMS “VEGETARIAN” AND “VEGAN” IN FOOD LABELING (Apr. 6, 2006), <http://webarchive.nationalarchives.gov.uk/20100720141723/http://www.food.gov.uk/foodindustry/guidancenotes/labellingguidance/vegguidancenotes>.

<sup>58</sup> *Id.*

<sup>59</sup> E.g., Vegan Society, Definition of Veganism, <https://www.vegansociety.com/go-vegan/definition-veganism>; see also Rebecca Schwartz, Note, *Employers, Got Vegan?: How Ethical Veganism Qualifies for Religious Protection Under Title VII*, 24 ANIMAL L. 221, 224-25 (2018); Bruce Friedrich, *The Church of Animal Liberation: Animal Rights as “Religion” under the Free Exercise Clause*, 21 ANIMAL L. 65 (2014).

<sup>60</sup> THE VEGAN SOCIETY, RIPENED BY HUMAN DETERMINATION 6 (2014), <https://www.vegansociety.com/sites/default/files/uploads/Ripened%20by%20human%20determination.pdf>.

<sup>61</sup> *Id.* at 4.

<sup>62</sup> Robert Glenn Ayres, *May Contain Hooves: Why and How the Government Should Implement Plain-Language Disclosure of Animal Products in Food Labels*, 5 STAN. J. ANIMAL L. & POL’Y 1, 4-5 (2012), <https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/ayres.pdf>.

principles<sup>63</sup> or other philosophies, theories, and social justice activism.<sup>64</sup> Some vegans believe that human beings should protect animals from harm (including harm inherent in farming them) as they would protect other innocents;<sup>65</sup> some vegans believe that it is unjust to exploit non-human animals because non-human animals have an inherent right to respect, just as human beings have an inherent right to respect;<sup>66</sup> some vegans are influenced by other philosophies<sup>67</sup> or a mix.

For some ethical vegans, consuming milk from animals and other dairy products is inconsistent with the ethics they uphold at every meal and in all aspects of their lives—learning that they have consumed animal products “can be disturbing and sickening”<sup>68</sup> and such consumers can be “devastated”<sup>69</sup> and “appalled.”<sup>70</sup>

Yet many vegetarians and vegans are routinely and unknowingly exposed to food products that violate their deeply held moral beliefs because there are currently no food labeling laws that require the disclosure of animal-derived ingredients.<sup>71</sup>

In the next section of this letter, we explain how the FDA can help consumers who seek plant-based replacements for dairy products make more informed decisions about the food products they buy.

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<sup>63</sup> *E.g.*, *id.* at 6-7 (2012) (discussing various religious groups for which vegetarianism or veganism is an ideal).

<sup>64</sup> *E.g.*, Bruce Friedrich, *supra* note 59 at 92-95.

<sup>65</sup> *E.g.*, Matthew Scully, *DOMINION: THE POWER OF MAN, THE SUFFERING OF ANIMALS, AND THE CALL TO MERCY* (2002).

<sup>66</sup> *E.g.*, Tom Regan, Lecture, *Does the Animal Kingdom Need a Bill of Rights?*, Royal Institute of Great Britain (1989), <https://www.youtube.com/watch?v=xj-MJKFM0Zs>. A distinct, but related, emerging theory links animal oppression to colonization. Aph Ko and Syl Ko, *APHRO-ISM: ESSAYS ON POP CULTURE, FEMINISM, AND BLACK VEGANISM FROM TWO SISTERS* (2017).

<sup>67</sup> *E.g.*, Peter Singer, *ANIMAL LIBERATION* (1975).

<sup>68</sup> Carrie Griffin Basas, “V” *Is for Vegetarian: FDA-Mandated Vegetarian Food Labeling*, *UTAH L. REV.* 1275, 1278 (2011).

<sup>69</sup> For example, vegans who consumed a soy yogurt that was contaminated with milk were “devastated.” Charlotte Ikonen, ‘My Baby was Screaming’ Customers’ FURY as Supermarkets Recall ‘Life Threatening’ Yogurt, *DAILY STAR SUNDAY* (Mar. 3, 2018), <https://www.dailystar.co.uk/news/latest-news/685901/CoYo-recall-yogurt-Tesco-Sainsbury-s-allergic-vegan-milk-death-fatal-risk-supermarket>.

<sup>70</sup> Sarah A. Kornblat, *Fat America: The Need for Regulation under the Food, Drug, and Cosmetic Act*, 49 *ST. LOUIS UNIV. L. J.* 238-39 (2004) (“French fries, which average consumers interpret to be potatoes cooked in hot oil, include a variety of acids, hydrogenated oils, and most unusually, a natural flavor derived from a beef source. . . . most vegetarians would likely be appalled by this information.”).

<sup>71</sup> Ayres, *supra* note 62.

### **III. WHAT IS CONSUMERS' UNDERSTANDING OF THE AMOUNT OR PROPORTION OF PLANT-BASED INGREDIENT(S) RELATIVE TO OTHER INGREDIENTS IN PLANT-BASED PRODUCTS?**

As explained above, consumers seeking to reduce, restrict or eliminate their consumption of animal-derived food products, including dairy products, deliberately do so for a variety of reasons, ranging from environmental concerns to deeply held moral convictions. The FDA should use this opportunity to promulgate regulations that help these consumers—a group that is comparable in size to or exceeds the number of consumers seeking kosher products or disclosures of food allergens.

The FDA can take steps that will both help consumers seeking or considering plant-based milks as a substitute for dairy milk and also address the dairy industry's concerns that some consumers may not understand that plant-based milks are not, in fact, a type of cow's milk. First, we recommend that the FDA promulgate a regulation requiring the disclosure of the proportion of plant-sourced ingredients to water in plant-based milks so that consumers can better compare dairy to non-dairy milks and compare non-dairy milks to other non-dairy milks. Second, we recommend that the FDA prohibit the use of the word “non-dairy” for a product unless that product actually contains no milk-derived products. And finally, the FDA should promulgate a regulation requiring manufacturers to disclose if their products contain an animal-derived ingredient.

#### **a. Consumers of Plant-Based Milks Lack Information about the Proportion of Plant-Sourced Ingredients to Water to Compare and Make Informed Choices about Plant-Based Milks**

##### ***i. Description of the problem***

No existing food labeling requirements effectively help a consumer determine the ratio of plant-sourced ingredients to water and other ingredients in plant-based milk products. There are some guidelines in place: Most processed food products must contain ingredient lists on their food labels that list each ingredient in descending order of predominance by weight.<sup>72</sup> Water added in making a food must also be included.<sup>73</sup> However, even with these existing guidelines, there is no way for consumers to determine the ratio of plant-sourced ingredients to water and other ingredients in plant-based milks. Plant-based milk products almost never disclose the percentage or amount of the “plant source” (for almond milk, almonds; for soy milk, soy beans; etc.) actually contained in the product.<sup>74</sup>

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<sup>72</sup> 21 C.F.R. § 101.4.

<sup>73</sup> 21 C.F.R. § 101.4(a); 21 C.F.R. § 101.4(c); FDA Compliance Policy Guide 555.875, <https://www.fda.gov/ICECI/ComplianceManuals/CompliancePolicyGuidanceManual/ucm074565.htm> (last updated Mar. 20, 2015).

<sup>74</sup> *E.g.*, *Original Soymilk*, SILK, <https://silk.com/products/original-soymilk> (listing first ingredient as “Soymilk (Filtered Water, Soybeans)"); *Almondmilk Original*, BLUE DIAMOND ALMONDS, <https://www.bluediamond.com/brand/almond-breeze/almondmilk/original> (listing first ingredient as “Almondmilk (Filtered Water, Almonds)"); *Milked Cashews*, ELMHURST, <https://elmhurst1925.com/milked-cashews.html> (listing

There is evidence that the water content in these products varies significantly and impacts the quality of the product. Many consumers buy plant-based milks because of these milks' perceived health benefits,<sup>75</sup> and some consumers opt for nut-based milks in particular because of studies showing a link between nut consumption and decreased risk of heart disease.<sup>76</sup> However, the potential health benefits of plant-based milks will vary significantly depending on how many servings of the “plant source” are included in a serving of the product.<sup>77</sup> For example, the nutritional profile of almond milk can vary greatly depending on its almond content. Blue Diamond, one of the most popular almond milk brands in the United States,<sup>78</sup> discloses that its U.K. “Almond Breeze” products contain 2% almonds.<sup>79</sup> Blue Diamond’s Unsweetened Almond Breeze in the U.K. contains 0.5 grams of protein and 13 calories per 100 mL serving.<sup>80</sup> By comparison, another almond milk brand, Elmhurst, advertises that its “Milked Almonds” products contain up to four times more nuts than other brands (though it does not disclose the percentage).<sup>81</sup> Elmhurst’s Unsweetened Milked Almonds contains 2 grams of protein and 54

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first two ingredients as “filtered water, cashews”); *Original Nutritious Pea Milk*, RIPPLE, <https://www.ripplefoods.com/original-plant-milk> (listing first two ingredients as “Water, Ripptein™ (Water, Pea Protein)”).

<sup>75</sup> Elaine Watson, *Why Do Consumers Buy Plant-Based Dairy Alternatives? and What Do They Think Formulators Need to Work on?*, FOOD NAVIGATOR, <https://www.foodnavigator-usa.com/Article/2018/02/08/Significant-percentage-of-consumers-buy-plant-based-dairy-alternatives-because-they-think-they-are-healthier-reveals-Comax-study> (last updated Feb. 8, 2018) (describing how survey results indicated that 36% of consumers purchase plant-based milks for their health benefits).

<sup>76</sup> E.g., *Eating Regular Variety of Nuts Associated with Lower Risk of Heart Disease*, AMERICAN COLLEGE OF CARDIOLOGY (Nov. 13, 2017), <https://www.acc.org/about-acc/press-releases/2017/11/13/14/08/eating-regular-variety-of-nuts-associated-with-lower-risk-of-heart-disease> (describing “the largest [study] to date looking at frequency of nut consumption in relation to incident cardiovascular disease”).

<sup>77</sup> For example, a serving of almonds (roughly 23 nuts) contains 6 grams of protein and 162 calories, but a serving of almond milk can contain anywhere from 1 gram of protein and 30 calories to 5 grams of protein and 130 calories. Compare Elizabeth Armour, *How Many Almonds in a Serving?*, FOOD NETWORK, <https://www.foodnetwork.com/healthyeats/healthy-tips/2013/04/how-many-almonds-in-a-serving>, with Blue Diamond, *Almond Breeze, Almondmilk, Unsweetened Original*, SMART LABEL, <https://smartlabel.labelinsight.com/product/4337864/nutrition> (1 gram of protein and 130 calories per 8 fluid ounces), and *Unsweetened Almond Milk*, MALK ORGANICS, <http://malkorganics.com/products> (5 grams of protein and 130 calories per 8 fluid ounces).

<sup>78</sup> *Market Share of Refrigerated Almond Milk in the United States in 2017, by Leading Brands*, STATISTA, <https://www.statista.com/statistics/451988/market-share-of-refrigerated-almond-milk-in-the-us-by-leading-brand/> (showing Blue Diamond Almond Breeze with the largest market share at 38.6%).

<sup>79</sup> *Original Almond Breeze*, BLUE DIAMOND ALMONDS, <https://www.bluediamondalmonds.co.uk/products/almond-breeze-unsweetened> (ingredients). Blue Diamond does not reveal the amount of almonds used in its U.S. products.

<sup>80</sup> *Unsweetened Almond Breeze*, BLUE DIAMOND ALMONDS, <https://www.bluediamondalmonds.co.uk/products/almond-breeze-unsweetened> (nutritional information).

<sup>81</sup> *Unsweetened Almonds*, ELMHURST, <https://elmhurst1925.com/unsweetened-milked-almonds.html> (claiming that product contains “[u]p to 4x more nuts per serving compared to other leading brands”).

calories per 100 mL—approximately four times the amount of protein and calories as Blue Diamond’s counterpart.<sup>82</sup>

Due to insufficient labeling requirements and the significant variation in content and quality among different products, it is nearly impossible for consumers to determine the proportion of plant-sourced ingredients to water and other ingredients in plant-based milk products and make an informed purchasing choice. In some instances, consumers may even be misled into thinking that a product contains significant amounts of a “plant source.” And indeed, the two leading almond milk manufacturers, Blue Diamond and WhiteWave Foods,<sup>83</sup> are the subjects of a class action lawsuit claiming that they misled consumers into thinking their products contain a significant amount of almonds and are heart healthy.<sup>84</sup> The plaintiffs allege that these companies are using depictions and labels<sup>85</sup> on their products and websites to mislead consumers into believing their products contain more almonds and have more health benefits than they actually do.<sup>86</sup> The action against Blue Diamond is currently stayed pending approval of a nationwide settlement agreement.<sup>87</sup>

## *ii. Recommendation*

To help consumers determine the ratio of plant-sourced ingredients to water and other ingredients in plant-based milk products, the FDA should implement labeling requirements for these products similar to existing juice label requirements, which require juice products to disclose the proportion of fruit or vegetable juice to other ingredients.<sup>88</sup>

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<sup>82</sup> Compare *Elmhurst Unsweetened Milked Almonds 32 oz. Creamy & Delicious Almond Milk*, AMAZON, <https://www.amazon.com/Elmhurst-Unsweetened-Delicious-Nutrition-Beverage/dp/B078GWS1WH> (nutrition facts picture), with *Unsweetened Almond Breeze*, BLUE DIAMOND ALMONDS, <https://www.bluediamondalmonds.co.uk/products/almond-breeze-unsweetened> (nutritional information).

<sup>83</sup> *Market Share of Refrigerated Almond Milk in the United States in 2017, by Leading Brands*, STATISTA, <https://www.statista.com/statistics/451988/market-share-of-refrigerated-almond-milk-in-the-us-by-leading-brand/> (showing Blue Diamond Almond Breeze with 38.6% market share and Silk Pure Almond, a product by WhiteWave Foods, with 33.4% market share).

<sup>84</sup> *Albert v. Blue Diamond Growers*, 151 F. Supp. 3d 412 (S.D.N.Y. 2015). See also Inae Oh, *Good News, Bad News: Your Almond Milk May Not Contain Many Almonds*, MOTHER JONES (July 22, 2015, 6:26 PM), <https://www.motherjones.com/food/2015/07/your-almond-milk-has-no-almonds> (describing the law suit against Blue Diamond and how consumers are “likely getting duped”).

<sup>85</sup> Such depictions and labels include the number of almonds pictured on the packaging, heart symbols or indications on the packaging that the product is certified by the American Heart Association as a “heart healthy food,” and claims on the packaging and on websites that the product is made from real almonds. *Albert v. Blue Diamond Growers*, 151 F. Supp. 3d at 415.

<sup>86</sup> *Id.*

<sup>87</sup> *Albert v. Blue Diamond Growers*, 232 F. Supp. 3d 509 (S.D.N.Y. 2017).

<sup>88</sup> 21 U.S.C. § 343(i); 21 C.F.R. § 101.30; see also FOOD & DRUG ADMIN., A FOOD LABELING GUIDE: GUIDANCE FOR INDUSTRY 8-13 (2013), [https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/UCM26544\\_6.pdf](https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/UCM26544_6.pdf) (explanation of juice label requirements).

Under juice labeling regulations, products that purport to contain fruit or vegetable juice—by way of label statements, pictures, or taste and appearance causing the consumer to expect juice in the beverage—must declare the percentage of juice contained in the product.<sup>89</sup> The percentage of juice declaration can take the form of “contains \_\_\_% juice” or “\_\_\_% juice.”<sup>90</sup> This label must be located near the top of the information panel, or, if the package does not contain an information panel, on the principal display panel,<sup>91</sup> and must meet size and legibility requirements.<sup>92</sup> The percentage of juice is calculated in two ways: (1) for juice expressed directly from fruits or vegetables, it is computed on a volume/volume basis,<sup>93</sup> and (2) for juice made by adding water to concentrate, manufacturers can calculate the percentage by using values from the Brix table in 21 C.F.R. § 101.30(h)(1).<sup>94</sup> Products that are diluted to less than 100% juice must have the word “juice” qualified with a term such as “beverage,” “drink,” “cocktail,” or “diluted.”<sup>95</sup>

For plant-based milk products, a similar labeling regime to the above can be implemented. Plant-based milk products generally fall into the following categories: nut-based products (e.g., almond milk, cashew milk), legume-based products (e.g., soy milk, pea milk), seed-based products (e.g., hemp milk, flax milk), and grain-based products (e.g., oat milk, rice milk).<sup>96</sup> The following are suggestions for how the juice label requirements can be adopted and modified for plant-based milk products.

- *Purporting to be a plant-based milk product.* Products purport to be plant-based milk products if their packaging contains label statements, pictures, or taste and appearance causing the consumer to expect the product to contain significant amounts of a “plant source” (again, for almond milk, almonds; for soy milk, soy beans; and so on).
- *Proportion declaration.* Plant-based milk products can declare the proportion of “plant source” *ingredients* to water and other ingredients with a percentage

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<sup>89</sup> 21 C.F.R. § 101.30(a).

<sup>90</sup> 21 C.F.R. § 101.30(b)(1).

<sup>91</sup> The principal display panel on food packaging is the part of a label most likely to be displayed, presented, shown, or examined under customary conditions of display for retail sale. 21 C.F.R. § 101.1.

<sup>92</sup> 21 C.F.R. § 101.30(e)-(g).

<sup>93</sup> 21 C.F.R. § 101.30(j).

<sup>94</sup> 21 C.F.R. § 101.30(h). For beverages made by reconstituting a blend of dehydrated fruits or vegetables, percentage is determined on a case by case basis. FOOD & DRUG ADMIN., A FOOD LABELING GUIDE: GUIDANCE FOR INDUSTRY 11 (2013), <https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/UCM265446.pdf>.

<sup>95</sup> 21 C.F.R. § 102.33(a).

<sup>96</sup> *Plant Milk*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Plant\\_milk](https://en.wikipedia.org/wiki/Plant_milk).

declaration (e.g., “\_\_% almonds”<sup>97</sup>) or, for products where it is practicable to do so,<sup>98</sup> the number of the “plant source” ingredient contained in a serving (e.g., “\_\_ almonds per serving”<sup>99</sup>).

- *Location and legibility requirements of label.* The proportion declaration for plant-based milk products can follow the location and legibility requirements for juice labels, described above. Percentage declarations can also be listed in the ingredients section of the nutrition label (e.g., “Almonds (\_\_%)”).<sup>100</sup>
- *Calculation of proportion.* Plant-based milk products are generally made by blending solid ingredients, such as nuts, legumes, seeds, or grains, with water and other ingredients.<sup>101</sup> The proportion of “solids” to water and other ingredients can be calculated by dividing the weight of “plant source” ingredients by the total weight of the product.
- *Qualifiers or disclaimers for excessively diluted products.* Products that fail to meet a minimum percentage of a “plant source” ingredient can be required to attach qualifiers to the product name, such as “beverage” or “drink” (e.g., “Almondmilk Beverage”). These products can also be required to include a visible disclaimer on the packaging, such as “Does not contain a significant amount of almonds.”

## **b. Consumers of Plant-Based Milks and Other Products Lack Information about Ingredients Necessary to Determine if a Product Contains Animal-Derived Products**

### *i. Description of the problem*

Most food products must contain ingredient lists on their food labels that include most ingredients in descending order of predominance by weight.<sup>102</sup> In addition, food labels must

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<sup>97</sup> On its U.K. website, Blue Diamond lists the percentage of almonds contained in its almond milk products. *Unsweetened Almond Breeze*, BLUE DIAMOND ALMONDS, <https://www.bluediamondalmonds.co.uk/products/almond-breeze-unsweetened> (ingredients).

<sup>98</sup> For certain types of plant-based milk products, such as seed-based and grain-based milk products, it may not be practicable for manufacturers or helpful to consumers to indicate the quantity of a “plant source” ingredient in this manner.

<sup>99</sup> In some of its older packaging, Elmhurst used to advertise that its almond milk contained “18 almonds in every glass.” *Elmhurst Unsweetened Milked Almonds 32 oz. Creamy & Delicious Almond Milk*, AMAZON, <https://www.amazon.com/Elmhurst-Unsweetened-Delicious-Nutrition-Beverage/dp/B078GWS1WH> (front label picture).

<sup>100</sup> This is how Blue Diamond discloses its percentage of almonds in its U.K. almond milk products. *Unsweetened Almond Breeze*, BLUE DIAMOND ALMONDS, <https://www.bluediamondalmonds.co.uk/products/almond-breeze-unsweetened> (ingredients).

<sup>101</sup> E.g., *How to Make Plant-Based “Milks”*, VEGETARIAN TIMES (Feb. 21, 2013), <https://www.vegetariantimes.com/uncategorized/how-to-make-plant-based-milks>.

<sup>102</sup> 21 C.F.R. § 101.4.



disclose certain allergens, including milk, egg, fish, Crustacean shellfish, tree nuts, wheat, peanuts, and soybeans.<sup>103</sup> Although these laws, along with voluntary vegan certification programs,<sup>104</sup> help consumers determine if there are animal-derived ingredients in food products, there are three deficiencies in the current labeling laws that are problematic for consumers seeking plant-based foods: (1) some products are labeled “non-dairy” yet include ingredients derived from cow’s milk; (2) some ingredients may be derived from either plant, synthetic, or animal sources and labels do not disclose the source; and (3) details about some flavorings and colors, which may be derived from animals, need not be disclosed. In addition, (4) the existing voluntary program for vegan certification is inadequate.

As a result, in some cases consumers cannot be completely sure if a plant-based dairy replacement product actually lacks products derived from animals without looking beyond the ingredient label.

***ii. Some products are labeled “non-dairy” but do include ingredients derived from cow’s milk***

Several products, like non-dairy creamers and cheese alternatives, are advertised as “non-dairy” or “cheese alternatives” but upon closer inspection, the product label states that they contain products sourced from cow’s milk.<sup>105</sup> The FDA allows this practice and in fact requires products labeled as non-dairy that contain caseinate to include an explanatory parenthetical in the ingredient list such as “caseinate (a milk derivative).”<sup>106</sup> Even so, some consumers seeking dairy-free foods may be confused about such labels, reasonably interpreting the phrase “non-dairy” to mean that the product does not contain dairy and, in reliance on such statement, fail to read the ingredient list.<sup>107</sup>

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<sup>103</sup> 21 U.S.C. §§ 321(qq) and 343(w).

<sup>104</sup> There are several voluntary vegan certification programs used in the United States, including: Certified Vegan, administered by the Vegan Awareness Foundation (<https://vegan.org/certification>), Vegan (sunflower symbol), administered by the Vegan Society (<https://www.vegansociety.com/your-business/vegan-society-trademark>), the V-Label, administered by the European Vegetarian Union, (<https://www.v-label.eu>), Vegan Certification, administered by Natural Food Certifiers (<https://nfc certification.com/vegan-certification>), and the Vegetarian Society Approved vegan trademark, administered by the Vegetarian Society (<https://www.vegsoc.org/definition>). See Appendix A for details about four of these programs.

<sup>105</sup> E.g., *Nestlé Coffee-mate Original Non-Dairy Coffee Creamer, Product Label Ingredients List*, NESTLÉ (“Milk Protein”), [http://www.nestle-family.com/coffee-mate/english/products/nestle-coffeemate-original\\_296952.aspx](http://www.nestle-family.com/coffee-mate/english/products/nestle-coffeemate-original_296952.aspx); *Jewel Non-Dairy Whipped Topping, Product Label Ingredients List*, SHOPWELL (“Caseinate (Milk Derived)”), <http://www.shopwell.com/jewel-non-dairy-whipped-topping/dessert-toppings/p/4128001392>; *Trader Joe’s Soy Cheese Blend Cheese Alternative Product Label Ingredients List (“casein (milk protein)”)*, FOODUCATE, <http://www.fooducate.com/app#!page=product&id=04E2B5E6-5EDF-11E2-AD7C-1231381A4CEA>.

<sup>106</sup> 21 C.F.R. § 101.4(d).

<sup>107</sup> For example, one article incorrectly claims that Trader Joe’s Soy Cheese Blend Cheese Alternative (see footnote 89 *infra*) is vegan. Trina Sudol, *A Cheese Lover Tries 4 Types of Vegan Cheese Because Apparently Cheese Doesn’t Have to Come from a Cow*, SPOON UNIVERSITY (Mar. 10, 2017), <https://spoonuniversity.com/lifestyle/a-cheese-lover-thoughts-on-four-types-of-vegan-cheese-alternatives>.

And that confusion is well founded. Many foods that do not contain any dairy also call themselves “non-dairy.” For example, Pacific Foods calls a dairy milk alternative product, “Non-Dairy Beverage”<sup>108</sup> and Häagen-Dazs calls a non-dairy ice cream alternative product “Non-Dairy Frozen Dessert.”<sup>109</sup> Neither of these products contain milk.

***iii. Some ingredients may be derived from either plant, synthetic, or animal sources and labels do not disclose the source***

Common food ingredients and additives that may come from plant-based, synthetic, or animal sources include, but are not limited to, lactic acid, glycerin/glycerine/glycerol, lecithin, gelatin, rennet, capric acid (decanoic acid), disodium inosinate, diglyceride, monoglycerides, diglycerides polysorbate disodium inosinate, cystine, sodium stearoyl lactylate, enzymes, clarifying agents, and emulsifiers.<sup>110</sup> These ingredients have such unfamiliar names that consumers are likely to be unaware that they may come from animal sources. We discuss a couple of these ingredients that are found in some plant-based dairy alternatives below.

Lactic acid is considered “the most important bacteria in desirable food fermentations” and is used in products such as sourdough bread, fermented foods and beverages, fermented milks, and fermented vegetables.<sup>111</sup> Lactic acid bacteria (which produces lactic acid) is naturally present in cow’s milk, but lactic acid has also been derived from soymilk since as early as 1934 when Kellogg prepared a fermented product using a lactic culture in soymilk.<sup>112</sup> Some plant-based alternatives to dairy products contain lactic acid, but sometimes it can be difficult to discern whether it is derived from cow’s milk or a plant source. For example, a popular butter alternative contains lactic acid, but the label does not disclose the source.<sup>113</sup> Some plant-based alternatives to dairy products that contain lactic acid do state the source in the ingredient list as “Lactic Acid (Plant Based),”<sup>114</sup> “Lactic Acid (Non Dairy),”<sup>115</sup> and “Non-Dairy Lactic Acid.”<sup>116</sup>

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<sup>108</sup> Pacific Foods Organic Almond Non-Dairy Beverage, PACIFIC FOODS, <https://shop.pacificfoods.com/organic-almond-vanilla>.

<sup>109</sup> HÄAGEN-DAZS, <https://www.haagendazs.us/products/non-dairy>.

<sup>110</sup> Carrie Griffin Basas, *supra* note 68 at 8-11.

<sup>111</sup> Misganaw Wassie & Teketay Wassie, *Isolation and Identification of Lactic Acid Bacteria from Raw Cow Milk*, 3 INTERNATIONAL J. OF ADVANCED RESEARCH IN BIOLOGICAL SCIENCES 44, 44 (2016), <https://www.ijarbs.com/pdfcopy/aug2016/ijarbs8.pdf>.

<sup>112</sup> B.K. Mital & K.H. Steinkraus, *Fermentation of Soy Milk by Lactic Acid Bacteria, A Review*, 42 J. OF FOOD PROTECTION 895 (Nov. 1979), <http://jfoodprotection.org/doi/pdf/10.4315/0362-028X-42.11.895>.

<sup>113</sup> *Smart Balance Buttery Spread Original, Product Label Ingredients List*, TARGET, <https://bit.ly/2OXGgzg>.

<sup>114</sup> *Forager Project, Creamy Dairy-free Yogurt, Vanilla Bean, Organic, Product Label Ingredients List*, NUTRITIONIX, <https://www.nutritionix.com/i/forager-project/creamy-dairy-free-yogurt-vanilla-bean-organic/5837e2cd5cb4bce643af14e5>.

<sup>115</sup> *Earth Balance Natural Buttery Spread, Product Label Ingredients List*, TARGET, <https://tinyurl.com/yap798yy>.

<sup>116</sup> *Tofutti Better Than Cream Cheese, Product Label Ingredients List*, TOFUTTI, <https://tofutti.com/frozen-desserts/better-than-cream-cheese/non-hydrongenated-plain>.

The presence of lactic acid in ingredient labels has been a source of confusion for many consumers who wish to avoid animal products, as evidenced by posts on message boards.<sup>117</sup>

As another example, glycerin (also called glycerine or glycerol) is a sugar alcohol used in processed foods as “a humectant (wetting agent), thickener, solvent or sweetener to dairy products (cream), canned goods, confections, fondant, processed fruits, jams, energy bars and other foods.”<sup>118</sup> Glycerin can be produced from animal, plant, or synthetic sources and most food labels do not reveal the source.<sup>119</sup> A sample of non-dairy ice cream packages indicates that the source of glycerin in the product is “vegetable glycerin”;<sup>120</sup> but this may be because they are specifically marketed to consumers choosing plant-based products.

As explained above, the consumption of animal-derived products even in trace amounts, such as the beef tallow formerly used in McDonald’s French Fries, can be problematic for many consumers.

***iv. Details about natural flavorings, which may be derived from animals, need not be disclosed on product labels***

Although generally ingredients must be listed on product labels, the FDA allows some ingredients to be listed as “flavors” without listing each one.<sup>121</sup> A “natural flavoring” may come from a plant or animal source, under the definition in the FDA regulations:

the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional.<sup>122</sup>

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<sup>117</sup> E.g., What’s the deal with Lactic Acid? Reddit.com, [https://www.reddit.com/r/vegan/comments/525yut/whats\\_the\\_deal\\_with\\_lactic\\_acid](https://www.reddit.com/r/vegan/comments/525yut/whats_the_deal_with_lactic_acid).

<sup>118</sup> Glycerine/Glycerol, Nutrients Review, [www.nutrientsreview.com](http://www.nutrientsreview.com).

<sup>119</sup> *Id.* (“The source of glycerin (animal or vegetable oil, corn syrup, petroleum) used in a food product is usually not revealed on the food labels.”).

<sup>120</sup> E.g., *Halo Top Dairy-Free Peanut Butter Cup Ice Cream Product Label Ingredients List* (“Vegetable Glycerin”), TARGET, <https://tinyurl.com/yc4snzbr>; *So Delicious Coconut Milk Vanilla Bean Frozen Dessert Product Label Ingredients List* (“Vegetable Glycerin”), TARGET, <https://tinyurl.com/ybx3tgs4>.

<sup>121</sup> FDA, OVERVIEW OF FOOD INGREDIENTS, ADDITIVES & COLORS (Revised Apr. 2010), <https://www.fda.gov/food/ingredientpackaginglabeling/ucm094211.htm> (“[S]ome ingredients can be listed collectively as “flavors,” “spices,” “artificial flavoring,” or in the case of color additives exempt from certification, “artificial colors”, without naming each one. Declaration of an allergenic ingredient in a collective or single color, flavor, or spice could be accomplished by simply naming the allergenic ingredient in the ingredient list.”).

<sup>122</sup> 21 C.F.R. § 101.22(a)(3).

There is no way a consumer can determine if an ingredient listed as a “natural flavoring” contains an animal-derived ingredient from reading the product label. And many animal ingredients are covered under the catchall term “natural flavoring(s).”<sup>123</sup>

*v. The existing voluntary certification program for vegan foods is inadequate*

The United Kingdom Food Standards Agency issued guidance stating, “the term ‘vegan’ should not be applied to foods that are or made from or with the aid of animals or animal products (including products from living animals).”<sup>124</sup> The European Union plans to pass a law concerning the labeling of vegan and vegetarian products in 2019.<sup>125</sup> But there is no such guidance in the United States, which in turn creates confusion.

In particular, the existing, voluntary certification program for vegan foods is confusing and inadequate. There are several organizations that provide third-party vegan certification for food products sold in the United States. These programs license their vegan trademark symbols for use on products that have been certified by their organizations. A description of the certifications of three such leading programs is included in Appendix A. These certifications are similar: They require that no animal-derived ingredients be included in products, that no animal parts be used in food processing, that steps be taken to limit cross contamination with animal products, and they limit GMOs in products.

But manufacturers also make claims about their products and include their own vegan symbols on product labels that look somewhat like the vegan symbols used by certifying organizations.<sup>126</sup> Or they claim on labels that their product is vegan. This may be because third-party certification is an added cost. Some product manufacturers have websites that explain the meanings of their vegan labels.<sup>127</sup> For example, information about the Whole Foods Private Label products’ vegan symbol found on its website is included in Appendix A. But over a dozen

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<sup>123</sup> Ayres, *supra* note 62 at 3-4.

<sup>124</sup> U.K. FOOD STANDARDS AGENCY, GUIDANCE ON THE USE OF THE TERMS “VEGETARIAN” AND “VEGAN” IN FOOD LABELING (Apr. 6, 2006), <http://webarchive.nationalarchives.gov.uk/20100720141723/http://www.food.gov.uk/foodindustry/guidancenotes/laberegsguidance/vegiguidancenotes>.

<sup>125</sup> Niamh Michail, *EU to set Legal Definition of Vegetarian and Vegan Food*, FOOD NAVIGATOR (Nov. 6, 2017), <https://www.foodnavigator.com/Article/2017/11/03/EU-to-set-legal-definition-of-vegetarian-and-vegan-food#>; The European Parliament and the Council Regulation (EU) No 1169/2011, Art. 36(3) (Oct. 25, 2011), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32011R1169>.

<sup>126</sup> For example, see the vegan logo or statement on product packaging for Treeline Cheese (<https://www.treelinecheese.com/products>) and Zen Soy chocolate almond pudding ([https://jet.com/product/Zensoy-Chocolate-Almond-Pudding\\_-4-Ct/a6beca2c31bd4e5184867a9cc864dc41?experienceId=22](https://jet.com/product/Zensoy-Chocolate-Almond-Pudding_-4-Ct/a6beca2c31bd4e5184867a9cc864dc41?experienceId=22)).

<sup>127</sup> *E.g.*, Trader Joe’s explains, “[A] vegan claim on Trader Joe’s private label means the product is free of all animal products and/or by-products—including meat, poultry, fish, eggs, dairy, honey, gelatin, lanolin and confectioner’s glaze, and carmine.” Vegan Products, TRADER JOE’S, <https://www.traderjoes.com/dietary-lists/vegan>.

vegan logos on products are licensed stock images and cannot be traced to a website explaining their meaning.<sup>128</sup>

The problem is that there is no uniform definition of what a vegan food product is. If a product is certified vegan, a consumer can go to the certifying organizations' website to learn the meaning of the certification. But if a product bears a vegan logo created by the manufacturer or a licensed stock image, the consumer will often be in the dark about what that means as they "may receive inadequate or inaccurate information when contacting a company, by email or phone, to determine if product is suitable."<sup>129</sup>

#### ***vi. Recommendation 1***

The FDA should not allow products that contain any dairy milk derivatives to call themselves "non-dairy." As explained above, many vegan products that are dairy alternatives call themselves something like "non-dairy beverage" or "non-dairy frozen dessert." And while there is no credible evidence that reasonable consumers who purchase plant-based milk products mistake them for milk from cows,<sup>130</sup> reasonable consumers *are* confused about the term "non-dairy," as illustrated above, and the term is inappropriate for products containing dairy.

#### ***vii. Recommendation 2***

The FDA should require product labels, including those of dairy and non-dairy milks, to disclose if the product is or is not made from or with the aid of animals or animal products. An effective regulation would (1) define what an animal is (we recommend the broad, simple definition used by the Vegan Society, "all vertebrates and all multicellular invertebrates," see Appendix A) and (2) include the phrase "animal-derived ingredients or processing" near the allergen disclosure. Although this requirement would help alleviate confusion concerning non-

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<sup>128</sup> For example, Vector Stock licenses vegan logos for print advertising and design, <https://www.vectorstock.com/royalty-free-vector/vegan-logo-round-eco-green-logo-vegan-vector-18200485> as does Shutterstock, <https://www.shutterstock.com/search/vegan+logo>.

<sup>129</sup> Melanie Cole, *Is it Really Vegan or Vegetarian? A Comparative Analysis of the Regulatory Frameworks for Food Labelling in Australia, the U.K. and the European Union*, 9 AUSTL. ANIMAL PROTECTION L.J. 44, 61 (2013).

<sup>130</sup> In *Ang v. Whitewave Foods Co.*, Case No. 13-cv-1953, 2013 U.S. Dist. Lexis 173185 (N.D. Cal., Dec. 10, 2013), for instance, the plaintiffs claimed that the defendants had misbranded plant-based products by using names like "soymilk," "almond milk," and "coconut milk." They noted that 21 C.F.R. § 131.110 describes "milk" as a secretion from cows, and they argued that reasonable consumers were likely to believe that "soymilk," "almond milk," and "coconut milk" likewise came from a cow. The Court disagreed and dismissed the claims, finding that it was "simply implausible" that a consumer would mistake such plant-based products with dairy milk and that it was "highly improbable" that a reasonable consumer would simply disregard the words preceding the word "milk" in products like "soymilk" and "almond milk" and assume that the beverages came from cows.

Similarly, in *Gitson v. Trader Joe's Co.*, Case No. 3:13-cv-01333, 2015 U.S. Dis. Lexis 170401 (N.D. Cal., Oct. 4, 2013), the U.S. District Court for the Northern District of California held that the use of the word "soymilk" in Trader Joe's products could not conceivably violate the federal Food, Drug and Cosmetic Act. The Court found that a reasonable consumer — and even "the least sophisticated consumer" — would not think that soymilk comes from a cow.

dairy alternatives, it would apply to all foods. It would not be limited to dairy and dairy alternatives.

This approach is preferable to an alternative approach suggested by some writers and consumers: requiring or encouraging products without animal-derived ingredients to label themselves vegan.<sup>131</sup> Some product manufacturers may be concerned about alienating some of their customers if they include a vegan label on their products.<sup>132</sup> Some consumers think that a vegan label means the product does not taste good.<sup>133</sup>

#### **IV. PROHIBITING PLANT-BASED MILKS FROM USING THE TERM “MILK” IN THEIR PRODUCT NAMES IS INAPPROPRIATE**

Finally, although the FDA does not directly request information on whether plant-based milks should be prohibited from using the term “milk” in their product names—as some representatives of Congress have requested<sup>134</sup>—we consider such a drastic step inappropriate. As noted above, reasonable consumers purchasing plant-based milk products do not mistake such products for milk from cows.<sup>135</sup> In addition, the history of the regulation defining the standard of identity of milk shows that it was established to address the rampant adulteration of dairy milk products occurring in the early 20th Century that harmed consumers who wished to purchase cows’ milk, not to “preclude or hinder the marketing of truthfully labeled new variations or new foods.”<sup>136</sup> Because consumers are buying plant-based alternatives instead of milk because they

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<sup>131</sup> E.g., Basas, *supra* note 68 at 1302; Comment from David Carlson (“Mandating vegan/vegetarian/non-vegetarian symbols on all food packaging would be much more helpful to those of us who aren’t sufficiently well heeled to afford specialty products from upscale retailers”) on Anna Starostinetskaya, “Vegan Amazon” Debuts with 4,500 Products and Major Plans to Expand, VEGNEWS (Oct. 29, 2018), <https://vegnews.com/2018/10/vegan-amazon-debuts-with-4500-products-and-major-plans-to-expand>.

<sup>132</sup> Katrina Fox, *Should Your Business Use the Word ‘Vegan’ in its Branding or Marketing?*, FORBES (Jan. 23, 2018), <https://www.forbes.com/sites/katrinafox/2018/01/23/should-your-business-use-the-word-vegan-in-its-branding-or-marketing/#d76fe647059f>; Rozina Sabur, *Suppliers Ditch ‘Vegan’ Label to Encourage Meat Eaters*, THE TELEGRAPH (Aug. 24, 2018), <https://www.telegraph.co.uk/news/2018/08/24/suppliers-ditch-vegan-label-encourage-meat-eaters>.

<sup>133</sup> Erika Kincaid, *Vegan Products Proliferate — but the Label Claim Does Not*, FOODDIVE (Aug. 14, 2017), <https://www.fooddive.com/news/vegan-products-proliferate-but-the-label-claim-does-not/449228>.

<sup>134</sup> Letter from Peter Welch et al. to Robert M. Califf, FDA Commissioner (Dec. 16, 2016), <http://www.nmpf.org/files/Welch-Simpson%20Letter.pdf>.

<sup>135</sup> See footnote 130 *infra*.

<sup>136</sup> The origin of the current standard of identity of milk is the U.S. Department of Agriculture’s Food Circular 136, issued in 1919. Food Circular 136 included a standard of identity for cow’s milk (which is similar to the standard in 21 C.F.R. 131.110) and a standard of identity for the milk of other animals (which no longer exists). These standards of identity were adopted because, at the time, a large number of dairies routinely adulterated their cow’s milk with starch, sugar, flour, plaster of Paris, chalk, eggs, water, animal brains, and other ingredients. (See, e.g., *Much of New York Milk is Far Below Standard*, N.Y. TIMES (Apr. 11, 1926), <https://www.nytimes.com/1926/04/11/archives/much-of-new-york-milk-is-far-below-standard-inspecting-force-is-too.html>.) The standard was intended to protect consumers who unwittingly purchased adulterated milk and honest businesses.

want to, banning the word “milk” on such product labels is not likely to make dairy milk more attractive to such consumers.

Further reasons against prohibiting the term “milk” for plant-based milks are outlined in our prior comment to Congress opposing the DAIRY PRIDE Act. A copy of that comment is attached in Appendix B.

\* \* \*

Thank you for considering our comments.

Respectfully,



Christopher Wlach  
Chair, Animal Law Committee

cc:

Senate Agriculture Committee:

Pat Roberts, Chair

Debbie Stabenow, Ranking Member

House Agriculture Committee:

K. Michael Conway, Chair

Collin C. Peterson, Ranking Member

DAIRY PRIDE Act sponsors:

Sen. Tammy Baldwin

Rep. Peter Welch

Congressional Animal Protection Caucus:

Rep. Earl Blumenauer, Co-Chair

Rep. Vern Buchanan, Co-Chair

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The modern standard of identity for milk was proposed on September 9, 1972 (37 Fed Reg. 18392-18396), shortly after the White House Conference on Food, Nutrition, and Health. The Federal Register proposing the new regulation cited several findings of the Conference including the finding that food standards should not be used to impede the marketing of new foods, as long as they are truthfully labeled:

[A] standard of characterization should be used solely for purposes of regulating the type of product for which a given name may be used, and should not preclude or hinder the marketing of truthfully labeled new variations or new foods.




Hence, using the standard of identity for cow’s milk as a way to limit the marketing of truthfully labeled foods like “soymilk” or almond milk, as proposed by several members of Congress, is inconsistent with the purpose and history of the regulation.

U.S. Congressional Delegations from New York:

Rep. Yvette Clarke  
Rep. Chris Collins  
Rep. Joseph Crowley  
Rep. Dan Donovan  
Rep. Eliot Engel  
Rep. Adriano Espaillat  
Rep. John Faso  
Sen. Kirsten E. Gillibrand  
Rep. Brian Higgins  
Rep. Hakeem Jeffries  
Rep. John Katko  
Rep. Peter King  
Rep. Nita Lowey  
Rep. Carolyn Maloney  
Rep. Sean Maloney  
Rep. Joe Morelle  
Rep. Gregory Meeks  
Rep. Grace Meng  
Rep. Jerrold Nadler  
Rep. Kathleen Rice  
Rep. Tom Reed  
Sen. Charles E. Schumer  
Rep. José Serrano  
Rep. Elise M. Stefanik  
Rep. Thomas Suozzi  
Rep. Claudia Tenney  
Rep. Paul Tonko  
Rep. Nydia Velázquez  
Rep. Lee Zeldin



## APPENDIX A

|                         |   |  |   |   |
|-------------------------|---|--|---|---|
|                         |    |    |    | Circle icon with a “V+” inside.   |
|                         | <b>Vegan Awareness Foundation</b><br><a href="https://vegan.org/certification">https://vegan.org/certification</a>  | <b>Vegan Society</b><br><a href="https://www.vegansociety.com/your-business/vegan-society-trademark">https://www.vegansociety.com/your-business/vegan-society-trademark</a>  | <b>Vegan Trademark by the Vegetarian Society</b><br><a href="https://www.vegsoc.org/page.aspx?pid=650">https://www.vegsoc.org/page.aspx?pid=650</a> | <b>Whole Foods Private Label</b><br><a href="https://www.wholefoodsmarket.com/about-our-products/product-faq/ingredients">https://www.wholefoodsmarket.com/about-our-products/product-faq/ingredients</a>   |
| <b>Product contents</b> | Product must not contain meat, fish, fowl, animal by-products, eggs or egg products, milk or milk products, honey or honey bee products, insects or products from insects such as silk or dyes, or sugar filtered with bone char. | The manufacture and/or development of the product, and where applicable its ingredients, must not involve, or have involved, the use of any animal product, by-product or derivative.<br><br>The Vegan Society understands the word ‘animal’ to refer to the entire animal kingdom, that is all vertebrates and all multicellular invertebrates. | Free from animal-derived ingredients  | Our Private Label products labeled as vegan only include plant-based foods and exclude all ingredients from animal or insect sources. Any animal or insect derived by-products, such as carmine, gelatin, rennet, beeswax, etc., are not allowed in our vegan products. |
| <b>Processing</b>       | Liquids such as beer, wine, maple syrup, and fruit juices may not be filtered, defoamed, or clarified with animal products.   | The manufacture and/or development of the product, and where applicable its ingredients, must not involve, or have involved, the use of any animal product, by-  | Not addressed on website  | Not addressed on website  |

|                              |  |  |   |                          |
|------------------------------|--|--|---|--------------------------|
|                              |  | product or derivative.   |   |                          |
| <b>Animal testing</b>        | Products must not have involved animal testing of ingredients or finished products by the supplier, producer, manufacturer, or independent party and may not be tested in the future.  | The development and/or manufacture of the product, and where applicable its ingredients, must not involve, or have involved, testing of any sort on animals conducted at the initiative of the company or on its behalf, or by parties over whom the company has effective control.  | No animal testing carried out or commissioned | Not addressed on website |
| <b>GMOs</b>                  | Products may not contain any animal-derived GMO's or animal-derived genes used to manufacture ingredients or finished product.   | The development and/or production of genetically modified organisms (GMO) must not have involved animal genes or animal-derived substances. Products put forward for registration which contain or may contain any GMOs must be labelled as such.  | GMO-free                                      | Not addressed on website |
| <b>Cleaning Requirements</b> | Acceptable steps must be taken to thoroughly clean and sanitize all surfaces, vessels, utensils, and machinery used between vegan and non-vegan production cycles to minimize cross-contamination if shared machinery is used. | Dishes that are to be labelled vegan must be prepared separately from non-vegan dishes. As a minimum surfaces and utensils must be thoroughly washed prior to being used for vegan cooking. We strongly recommend that a separate set of utensils be procured for this purpose. Be aware of the risk of cross-contamination from non-vegan sources in your kitchen, and take all reasonable practical steps to eliminate this. | No cross-contamination during production      | Not addressed on website |

## APPENDIX B



**NEW YORK  
CITY BAR**

**REPORT ON LEGISLATION  
BY THE ANIMAL LAW COMMITTEE AND  
THE CONSUMER AFFAIRS COMMITTEE**

**S. 130  
H.R. 778**

**Sen. Baldwin  
Rep. Welch**

AN ACT to require enforcement against misbranded milk alternatives.

**DAIRY PRIDE Act**

**THIS LEGISLATION IS OPPOSED**

**A. INTRODUCTION**

The Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act (DAIRY PRIDE Act), S.130 and H.R. 778, would have the effect of prohibiting the use of the word “milk” in names of products such as “soymilk,” “almond milk,” “coconut milk,” “rice-milk,” and similar plant-based beverages as well as words like “ice cream,” “yogurt,” and “cheese” for plant-based foods. Neither the facts nor the law warrant prohibiting the use of the terms “milk,” “ice cream,” “yogurt,” and “cheese” in plant-based product names because:

- Labeling a plant-based beverage “milk” does not mislead consumers, because no reasonable consumer would believe that such milk comes from a cow;
- The qualified use of the word “milk” in the names of plant-based products is not “a violation of milk’s standard of identity”;
- The names of popular non-dairy ice creams, yogurts, and cheeses already clearly state that they are plant-based, and thus they are not misleading;
- The health claims in the legislative findings misrepresent statements in the Dietary Guidelines published by the U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA);
- There is no evidence that consumers are misled about the nutritional content of plant-based milks;
- The restriction on the use of the word “ice cream” undercuts the ostensible purpose of the bill to protect the public health; and
- Plant-based milks are a reasonable alternative to consumers who choose not to consume dairy products due to health needs, religious beliefs, and/or concerns about animals and the environment.

## B. SUMMARY OF PROPOSED LEGISLATION

The bill would amend section 403 of the federal Food, Drug and Cosmetic Act (21 U.S.C. § 343) to provide that a food using “a market name for a dairy product” may not be introduced or delivered for introduction into interstate commerce unless such food “is, contains as a primary ingredient, or is derived from the lacteal secretion, particularly free from colostrum,<sup>1</sup> obtained by the complete milking of one or more hooved animals.” The bill defines “a market name for a dairy product” as the dairy products defined in Parts 131 and 133 and Sections 135.110, 135.115, and 135.140 of title 21, Code of Federal Regulations and successor regulations, and “any other term for which the Secretary has promulgated a standard of identity<sup>2</sup> with respect to a food that is formulated with a dairy product (as described in subparagraph (2)) as the primary ingredient.” Part 131 provides descriptions for milk,<sup>3</sup> heavy cream,<sup>4</sup> sour cream,<sup>5</sup> and yogurt,<sup>6</sup> among other items.<sup>7</sup> Part 133 also defines milk (with a different definition than the definition in Part 131).<sup>8</sup> Part 133 also describes specific types of cheeses made from cow’s, sheep’s, or goat’s milk such as mozzarella cheese,<sup>9</sup> cheddar cheese,<sup>10</sup> and cream cheese<sup>11</sup> though it does not include a description or definition of the generic term “cheese.” Section 135.110 describes cow’s milk ice cream. Section 135.115 describes goat’s milk ice cream. And Section 135.140 describes cow’s milk sherbet.

## C. ARGUMENT

### 1. Labeling a plant-based beverage “milk” does not mislead consumers, because no reasonable consumer would believe that such milk comes from a cow.

The bill’s legislative findings suggest that the purpose of the bill is to protect consumers who are being misled into believing that certain plant-based foods and beverages

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<sup>1</sup> Merriam-Webster defines “colostrum” as “milk secreted for a few days after childbirth and characterized by high protein and antibody content.” MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/colostrum>.

<sup>2</sup> A standard of identity may be established if “such action will promote honesty and fair dealing in the interest of consumers” in accordance with 9 USC § 341.

<sup>3</sup> 21 CFR § 131.110(a) describes milk as “the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy cows.”

<sup>4</sup> 21 CFR § 131.150.

<sup>5</sup> 21 CFR § 131.160.

<sup>6</sup> 21 CFR § 131.200.

<sup>7</sup> 21 CFR § 131.206.

<sup>8</sup> 21 CFR § 133.3 defines milk as “the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy cows, which may be clarified and may be adjusted by separating part of the fat therefrom; concentrated milk, reconstituted milk, and dry whole milk. Water, in a sufficient quantity to reconstitute concentrated and dry forms, may be added.”

<sup>9</sup> 21 CFR § 133.155.

<sup>10</sup> 21 CFR § 133.133.113.

<sup>11</sup> 21 CFR § 133.133.

come from cows or other hooved animals. The findings state, “Plant-based products labeled as milk are misleading to consumers.” Yet the legislative findings offer no specific evidence to support these claims. And in fact, courts in recent cases have concluded just the opposite: that the plant-based beverages labeled “milk” are not misleading to consumers, for the simple reason that no reasonable consumer would believe that “soy milk,” for instance, is the same as the “milk” that comes from a cow.

In particular, two federal courts have recently found it implausible that a reasonable consumer<sup>12</sup> could confuse soymilk or similar products with milk from a cow. In *Ang v. Whitewave Foods Co.*, Case No. 13-cv-1953, 2013 U.S. Dist. Lexis 173185 (N.D. Cal., Dec. 10, 2013), the U.S. District Court for the Northern District of California rejected the very statement in the legislative findings. There, plaintiffs claimed that the defendants had misbranded plant-based products by using names like “soymilk,” “almond milk,” and “coconut milk.” They noted that 21 C.F.R. § 131.110 describes “milk” as a secretion from cows, and they argued that reasonable consumers were likely to believe that “soymilk,” “almond milk,” and “coconut milk” likewise came from a cow. The Court disagreed and dismissed the claims, finding that it was “simply implausible” that a consumer would mistake such plant-based products with dairy milk<sup>13</sup> and that it was “highly improbable” that a reasonable consumer would simply disregard the words preceding the word “milk” in products like “soymilk” and “almond milk” and assume that the beverages came from cows.

Similarly, in *Gitson v. Trader Joe’s Co.*, Case No. 3:13-cv-01333, 2015 U.S. Dis. Lexis 170401 (N.D. Cal., Oct. 4, 2013), the U.S. District Court for the Northern District of California held that the use of the word “soymilk” in Trader Joe’s products could not conceivably violate the federal Food, Drug and Cosmetic Act. The Court found that a reasonable consumer—and even “the least sophisticated consumer”—would not think that soymilk comes from a cow.

We note that the use of the word “milk” for plant-based beverages is centuries old. Notably, the Oxford English Dictionary documents a reference to almond milk—or “mylke of almaundes”—dating from the early-fifteenth century.<sup>14</sup> The term “rice milk” has been used since at least 1914.<sup>15</sup> And the word “soymilk” has been used since at least 1936.<sup>16</sup>

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<sup>12</sup> The FDA uses the “reasonable consumer” standard in evaluating labeling for dietary supplements and conventional foods. FDA, GUIDANCE: QUALIFIED HEALTH CLAIMS IN THE LABELING OF CONVENTIONAL FOODS AND DIETARY SUPPLEMENT (Dec. 2002), <http://www.fda.gov/ohrms/dockets/98fr/02d-0515-gdl0001.pdf>.

<sup>13</sup> *Ang*, at \*12-13.

<sup>14</sup> See OXFORD ENGLISH DICTIONARY, <http://oed.com> (enter “milk”; then click “Go”) (citing CURYE ON INGLYSCH at 114 (eds. Constance B. Heatt and Sharon Butler) (1985)). The dictionary notes several other similar historical references, as well as more recent ones.

<sup>15</sup> WILLIAM SHURTLEFF & AKIKO AOYAGI, HISTORY OF SOYMILK AND OTHER NON-DAIRY MILKS (1226 TO 2013) 6 (2013), <http://www.soyinfocenter.com/pdf/166/Milk.pdf>.

<sup>16</sup> *Id.* at 7.

**2. The qualified use of the word “milk” in the names of plant-based products is not “a violation of milk’s standard of identity.”**

The legislative findings suggest that plant-based products violate milk’s standard of identity. They say that there is a “proliferation of plant-based products in the marketplace that are mislabeled as milk despite the standard of identity defined for this substance” and call on the Food and Drug Administration (FDA) to improve enforcement against these mislabeling practices “to avoid misleading consumers.”

The proposed legislation fails to acknowledge the fact that the plant-based beverages at issue are not labeled just “milk”; rather, they simply include the word “milk” in their name. And in fact, in *Gitson* (see Section C.1 above), the U.S. District Court for the Northern District of California drew on just this distinction in holding that a manufacturer’s use of the word “soymilk” did not violate milk’s “standard of identity.”<sup>17</sup> The Court reasoned that the fact that milk has a standard of identity “does not categorically preclude a company from giving any food product a name that includes the word ‘milk.’”<sup>18</sup> Rather, the “standardization of milk simply means that a company cannot *pass off* a product as “milk” if it does not meet the regulatory definition of milk.”<sup>19</sup> The Court found that the manufacturer in that case did not purport to pass off its product as cow’s milk because the product clearly identified itself as derived from soy—“soymilk.”<sup>20</sup>

**3. The names of popular non-dairy ice creams, yogurts, and cheeses state their plant-based sources clearly, and thus they would not be misleading to a reasonable consumer.**

The legislation would not allow non-dairy ice creams to use the word “ice cream” in their product names. Yet current product names for popular non-dairy ice creams would not mislead a reasonable consumer to believe that they come from cow’s or goat’s milk. The brands So Delicious and Ben & Jerry calls their products “non-dairy frozen desserts.” The brand Tofutti calls its soy-based products “frozen dessert.” And Luna & Larry’s brand calls its dessert “Coconut Bliss.”

Likewise popular non-dairy yogurts clearly state that they are plant-based. For example, “cultured coconut” (So Delicious brand), “dairy-free yogurt alternative” (Silk brand), “cultured soy” (Nancy’s brand), “cultured almondmilk” (Amande), “soy yogurt” (Stonyfield brand), and “soyogurt” (Wildwood brand).

And popular cheese alternatives clearly state that they are dairy free. For example, “cream cheese alternative” (Go Veggie and Teese brands), “Dairy Free Mozzarella” (Tofutti brand), “vegan gourmet shreds” (Follow Your Heart brand), “tree nut cheese” (Dr. Cow brand), “cheddar style shreds” (Daiya brand, package says in large letters “deliciously dairy free”).

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<sup>17</sup> *Gitson*, at \*5-6.

<sup>18</sup> *Gitson*, at \*6.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* at \*6-7.

For the reasons explained in the cases cited in sections C.1 and C.2 above, like plant-based milks, these plant-based foods would not mislead a reasonable consumer into believing they were made with cow's milk. And given that the products already clearly identify themselves as being plant-based and/or dairy free, it's not clear what consumer-protection problem this legislation is trying to remedy.

**4. The health claims in the legislative findings misrepresent recommendations in the 2015-2020 Dietary Guidelines published by the U.S. Department of Health and Human Services and the U.S. Department of Agriculture (“Dietary Guidelines”).<sup>21</sup>**

The legislative findings say that the Dietary Guidelines state, “Dairy products are an important part of a healthy diet for both children and adults,” “most Americans are not meeting recommended intake for the dairy food group,” and “dairy foods are excellent sources of critical nutrients for human health, including vitamin D, calcium, and potassium, all of which are under consumed by people of the United States.”

Astonishingly, the legislative findings fail to disclose a crucial fact: The Dietary Guidelines include fortified soymilk in the dairy group.<sup>22</sup> So all of the legislative findings quoted above apply to at least one plant-based milk. The Dietary Guidelines recommend that Americans increase consumption of certain foods in the dairy group, including fortified soymilk, as follows: “Most individuals in the United States would benefit by increasing dairy intake in fat-free or low-fat forms, whether from milk (including lactose-free milk), yogurt, and cheese or from *fortified soy beverages (soymilk)*.”<sup>23</sup>

The legislative findings also state, “The amount of calcium per calorie is lower for most plant-based alternative milk products. To obtain the amount of calcium contained in one cup of non-fat fluid milk from a plant-based milk alternative, the portion size and calorie intake must be greater.” But the differences are negligible, and do not hold true for low-fat and reduced fat milks.<sup>24</sup>

The Dietary Guidelines rank 36 food sources by amounts of calcium and energy per standard food portions and per 100 grams of foods.<sup>25</sup> Both almond milk and soymilk have more calcium per 100 grams than skim milk, and rice drink is not far behind. This is how one

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<sup>21</sup> The Dietary Guidelines are available on HHS's website at [https://health.gov/dietaryguidelines/2015/resources/2015-2020\\_Dietary\\_Guidelines.pdf](https://health.gov/dietaryguidelines/2015/resources/2015-2020_Dietary_Guidelines.pdf).

<sup>22</sup> HHS & USDA, 2015–2020 DIETARY GUIDELINES FOR AMERICANS 8TH EDITION 23 (Dec. 2015) (“Soy beverages fortified with calcium, vitamin A, and vitamin D, are included as part of the dairy group because they are similar to milk based on nutrient composition and in their use in meals. Other products sold as “milks” but made from plants (e.g., almond, rice, coconut, and hemp “milks”) may contain calcium and be consumed as a source of calcium, but they are not included as part of the dairy group because their overall nutritional content is not similar to dairy milk and fortified soy beverages (soymilk).”).

<sup>23</sup> *Id.* at 49.

<sup>24</sup> See DIETARY GUIDELINES, *supra* note 18, FOOD SOURCES OF CALCIUM, APPENDIX 11 at 108-111.

<sup>25</sup> *Id.*



cup each of almond milk, soymilk, and rice drink compare with one cup of cow’s milk in the Dietary Guidelines’ ranking:

| Rank      | Food                      | Calories in Standard Portion | Calcium in Standard Portion (mg) | Calories per 100 grams | Calcium per 100 grams (mg) |
|-----------|---------------------------|------------------------------|----------------------------------|------------------------|----------------------------|
| 6         | Almond milk               | 91-120                       | 451                              | 38-50                  | 188                        |
| 15        | Soymilk                   | 109                          | 340                              | 45                     | 140                        |
| 24        | Low-fat milk (1%)         | 102                          | 305                              | 42                     | 125                        |
| <b>26</b> | <b>Skim milk (nonfat)</b> | <b>83</b>                    | <b>299</b>                       | <b>34</b>              | <b>122</b>                 |
| 27        | Reduced fat milk (2%)     | 122                          | 293                              | 50                     | 120                        |
| 31        | Rice drink                | 113                          | 283                              | 47                     | 118                        |
| 34        | Whole milk                | 149                          | 276                              | 61                     | 113                        |

In fact, both tofu and spinach both rank higher in calcium than cow’s milk.<sup>26</sup>

**5. There is no evidence that consumers are misled about the nutritional content of plant-based milks.**

The legislative findings state that “dairy foods are excellent sources of critical nutrients for human health, including vitamin D, calcium, and potassium, all of which are under consumed by people of the United States” and “Imitation dairy products, such as plant-based products . . . often do not provide the same nutrition content as real milk, cheese, and yogurt derived from dairy cows,” implying that plant-based milks are inferior. The next finding says that plant-based products are misleading to consumers, suggesting that consumers do not understand that plant-based products have a different nutritional content than milk.

The USDA-mandated Nutrition Facts label<sup>27</sup> ensures that consumers are not misled about plant-based beverages’ nutritional content. Thus, there is no likelihood that a reasonable consumer would be misled into believing a plant-based beverage has the same nutritional content as cow’s milk. Indeed, in *Gitson v. Trader Joe’s Co.* (discussed in Section C.1 above), the Court found that a reasonable consumer would not assume that soymilk and cow’s milk have the same nutritional content,<sup>28</sup> pointing to the fact that a reasonable consumer could simply consult the Nutrition Facts label for information about nutrient content.<sup>29</sup>

**6. The restriction on the use of the word “ice cream” undercuts the ostensible purpose of the bill to protect the public health.**

The legislative findings imply that the purpose of the bill is to protect the public health; indeed, five of the eight legislative findings concern nutrition and two state that plant-

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<sup>26</sup> *Id.*

<sup>27</sup> 9 CFR Part 317.

<sup>28</sup> *Gitson* at \*4.

<sup>29</sup> *Id.*

based milk product names are misleading. But if the purpose of the proposed legislation is to protect the public health, why then does the legislation bar plant-based desserts from calling themselves “ice cream”? The Dietary Guidelines urge individuals to “limit calories from added sugars and saturated fats . . .”<sup>30</sup> and The USDA recommends that individuals “cut back on foods containing saturated fat including . . . ice cream and other dairy desserts.”<sup>31</sup> The Dietary Guidelines also say, “[I]ndividuals should eat as little dietary cholesterol as possible while consuming a healthy eating pattern.”<sup>32</sup> Individuals who wish to minimize their intake of cholesterol, and thus reduce their risk of cardiovascular disease,<sup>33</sup> can do so by avoiding animal products.

Ice cream made from dairy milk tends to contain significantly more saturated fat than plant-based ice creams, with the exception of plant-based ice creams made from coconut milk, and no plant-based ice creams contain cholesterol. Here’s how the sugar, total fat, saturated fat, and cholesterol, in ½ cup of six popular brands of vanilla compare:

| <b>Brand</b>  | <b>Total fat</b> | <b>Saturated fat</b> | <b>Sugar</b> | <b>Cholesterol</b> |
|---|------------------|----------------------|--------------|--------------------|
| Haagen Dazs Vanilla Dairy Ice Cream <sup>34</sup>                               | 17g              | 10g                  | 20g          | 90mg               |
| Ben & Jerry’s Vanilla Dairy Ice Cream <sup>35</sup>                             | 16g              | 10g                  | 20g          | 90mg               |
| Breyer’s Vanilla Natural Dairy Ice Cream <sup>36</sup>                          | 7g               | 4g                   | 14g          | 20mg               |
| Luna & Larry’s Organic Coconut Bliss Vanilla (Coconut milk based) <sup>37</sup> | 16g              | 14g                  | 13g          | 0mg                |
| Almond Dream Vanilla Dairy-Free (Almond milk based) <sup>38</sup>               | 7g               | 1g                   | 12g          | 0mg                |
| So Delicious Vanilla Dairy-Free (Soy milk based) <sup>39</sup>                  | 3g               | 0g                   | 14g          | 0mg                |

<sup>30</sup> DIETARY GUIDELINES, *supra* note 18, at xii.

<sup>31</sup> USDA, Choose Foods and Beverages with Less Saturated Fat, Sodium, and Added Sugars, Choose My Plate, <https://www.choosemyplate.gov/saturated-unsaturated-and-trans-fats>.

<sup>32</sup> DIETARY GUIDELINES, *supra* note 18, at 32.

<sup>33</sup> *Id.* (“Strong evidence from mostly prospective cohort studies but also randomized controlled trials has shown that eating patterns that include lower intake of dietary cholesterol are associated with reduced risk of CVD [cardiovascular disease], and moderate evidence indicates that these eating patterns are associated with reduced risk of obesity.”)

<sup>34</sup> Haagen-Dazs, Vanilla, <https://www.haagendazs.us/products/2473/ice-cream/vanilla>.

<sup>35</sup> Ben & Jerry’s, Vanilla, <http://www.benjerry.com/flavors/vanilla-ice-cream>.

<sup>36</sup> Smartlabel, Breyers, Ice Cream, Natural Vanilla, <http://smartlabel.breyers.com/product/2749366/nutrition?locale=en-US>.

<sup>37</sup> Luna & Larry’s Coconut Bliss, Vanilla Island, <http://coconutbliss.com/bliss/vanilla-island>.

<sup>38</sup> Almond Dream, Vanilla, <http://www.dreamplantbased.com/product/almond-dream-vanilla>.

<sup>39</sup> So Delicious Dairy Free, Creamy Vanilla, <http://sodeliciousdairyfree.com/products/soy-milk-frozen-desserts/creamy-vanilla>.

**7. Plant-based milks are a reasonable alternative to consumers who choose not to consume dairy products due to health needs, religious beliefs, and/or concerns about animals and the environment.**

There is no evidence that prohibiting the use of words such as “milk,” “ice cream,” “cheese,” and “yogurt” in plant-based products would cause consumers to buy more animal-based dairy products instead of plant-based products. The simple fact is that the growing consumer interest in plant-based milks, ice cream, yogurt, and cheese is due *not* to any confusion about what these milks contain; rather, it is in large part due to consumers’ deliberate choice to consume non-dairy alternatives. Some consumers do not drink or limit their intake of cow’s milk because they (i) are allergic to it,<sup>40</sup> (ii) are lactose intolerant,<sup>41</sup> (iii) have a moral conviction that it is unjust for humans to exploit non-human animals,<sup>42</sup> (iv) have animal welfare concerns relating the treatment of dairy cows,<sup>43</sup> (v) have adopted plant-based diets on the recommendation of their doctors and nutritionists,<sup>44</sup> (vi) have concerns

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<sup>40</sup> Cow’s milk is a “major food allergen” (21 USC § 321(qq)(1)) for which there is no suitable therapy available except avoidance. Approximately 0.6–2.5% of preschoolers, 0.3% of older children and teens, and less than 0.5% of adults are allergic to cow’s milk. (Heidrun Hochwallner *et al.*, *Cow’s Milk Allergy: From Allergens to New Forms of Diagnosis, Therapy and Prevention*, 66 *METHODS* 22 (March 2014), available at [http://ac.els-cdn.com/S1046202313003034/1-s2.0-S1046202313003034-main.pdf?\\_tid=9fc54a30-dbf-11e6-afd8-0000aacb361&acdnat=1484579054\\_d1c2edf9a82bc48c4f06be67e7de2524](http://ac.els-cdn.com/S1046202313003034/1-s2.0-S1046202313003034-main.pdf?_tid=9fc54a30-dbf-11e6-afd8-0000aacb361&acdnat=1484579054_d1c2edf9a82bc48c4f06be67e7de2524).) The current treatment for a cow’s milk allergy is the elimination of cow’s milk from the diet. (*Id.* at 28.) For people who are allergic to cow’s milk, plant-based milks are often a reasonable alternative. Plant-based milks that are made from tree nuts and soy also contain allergens (21 USC § 321(qq)), but not all people who are allergic to cow’s milk are allergic to plant-based milks. (*See, e.g., id.* (Soy milk induces allergic reactions in up to 15% of infants who are allergic to cow’s milk.)).

<sup>41</sup> People who are lactose intolerant, for instance, are unable to fully digest the lactose (a sugar) in milk. (Mayo Clinic, Lactose Intolerance, Definition (Sept. 2, 2016), available at <http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/definition/con-20027906>.) As a result, they have uncomfortable symptoms such as diarrhea, gas, and bloating after consuming dairy products. (*Id.*) Unlike people who are allergic to dairy milk, lactose intolerant individuals may consume dairy products, but limiting intake of dairy products is one way to reduce symptoms. (Mayo Clinic, Lactose Intolerance, Lifestyle and Home Remedies (Sept. 2, 2016), available at <http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/lifestyle-home-remedies/con-20027906>.)

<sup>42</sup> *See generally* the website of the American Vegan Society at [www.americanvegan.org](http://www.americanvegan.org); the website of the Peace Advocacy Network at <http://www.peaceadvocacynetwork.org>.

<sup>43</sup> Woodstock Farm Sanctuary, *Cows for Dairy*, available at <http://woodstocksanctuary.org/learn/animals-used-for-food/cows-for-dairy>. For example, some consumers find the common industry practice of taking one- and two-day-old calves away from mother cows unconscionable; or they find reports about violations of animal cruelty laws by employees of dairy producers disconcerting. For example, Wisconsin’s Wiese Brothers Farms workers, Abelardo Jaimes and Lucia Martinez, were convicted of multiple counts of animal cruelty relating to treatment of dairy cows in April 2014. Katie DeLong, *Animal cruelty: Two more convictions tied to Wiese Bros. Farm*, Fox6, (May 6, 2014), available at <http://fox6now.com/2014/05/06/two-more-connected-to-wiese-brothers-farm-convicted-of-animal-cruelty>.

<sup>44</sup> *See, e.g.*, Thomas Campbell, MD, T. Colin Campbell Center for Nutrition Studies, *How to Get Calcium Without Dairy* (Dec. 12, 2014) (suggesting that plant-based sources of calcium are strongly preferable to cow’s milk, for which health problems may be attributable), available at <http://nutritionstudies.org/how-to-get-calcium-without-dairy>.

about the environment,<sup>45</sup> (vii) possess certain religious beliefs,<sup>46</sup> or (viii) prefer the taste of plant-based milks.

#### **D. SUMMARY**

For the reasons explained above, the Animal Law Committee and Consumer Affairs Committee oppose the Dairy Pride Act.

Lori A. Barrett  
Chair, Animal Law Committee

Carla A. Latty  
Chair, Consumer Affairs Committee

March 2017

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<sup>45</sup> See, e.g., FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ANIMAL PRODUCTION AND HEALTH DIVISION, GREENHOUSE GAS EMISSIONS FROM THE DAIRY SECTOR (2010) (“The global dairy sector contributes 4.0 percent to the total global anthropogenic GHG [greenhouse gas] emissions”), available at <http://www.fao.org/docrep/012/k7930e/k7930e00.pdf>; Beth Gardiner, *How Growth in Dairy Is Affecting the Environment*, NY TIMES (May 1, 2015), available at <https://www.nytimes.com/2015/05/04/business/energy-environment/how-growth-in-dairy-is-affecting-the-environment.html>.

<sup>46</sup> E.g., Charles Camosy, *Why all Christians Should go Vegan*, WASHINGTON POST (Jan. 5, 2017) (“The Bible is clear, and early Christians understood it: Animals are meant to be our companions, not our food.”), available at [https://www.washingtonpost.com/posteverything/wp/2017/01/05/why-all-christians-should-go-vegan/?postshare=9371483625693074&tid=ss\\_fb-bottom&utm\\_term=.bced95051698](https://www.washingtonpost.com/posteverything/wp/2017/01/05/why-all-christians-should-go-vegan/?postshare=9371483625693074&tid=ss_fb-bottom&utm_term=.bced95051698); The Jewish Vegetarian Society, *What’s Jewish About Being Veg?*, (“There is no disputing that, according to the Torah, God asked human beings to be vegans in his very first conversation with Adam and Eve.”), available at <https://www.jewishveg.org/whats-jewish-about-being-veg>.