Graduate Student Literature Review: Labeling challenges of plant-based dairy-like products for consumers and dairy manufacturers*

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ABSTRACT

The global market for plant-based products is increasing at a faster rate than the market for traditional dairy products. Current regulations provide standards for those traditional dairy products but lack the same regulations for similar plant-based products. Resulting from this difference in regulation is consumer confusion over the differences between the 2 types of products. The purpose of this review paper was to understand how the differences between traditional dairy and plant-based dairy-like products could affect litigation by consumer and dairy manufacturers against potential misleading labeling. A review of the available literature found 4 relevant articles for analysis. Consumers and manufacturers can pursue claims against potentially misleading product labeling but must provide sufficient evidence to prove deception or injury. Past litigation against plant-based products for being misleading has ruled in favor of the plant-based defendants. These rulings were based on the notion that reasonable consumers would not be misled. Consumer and manufacturing advocates for dairy products should focus more resources on the education of consumers rather than litigation if the goal is to promote dairy products. Long-term regulatory changes could be made through the Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act, which is currently under legislative review.

Key words: dairy-like, labeling, consumer, reasonable, milk

INTRODUCTION

Competition is generally expected in the food industry, whereas competition without equal regulation is not. Dairy product manufacturers are reacting to a growing market with the increasing presence of plant-based dairy-like products. The competition between dairy product manufacturers and plant-based product manufacturers specifically involves labeling rather than traditional consumer marketing strategies. The worldwide milk production in 2013 had a value of approximately $328 billion and is forecasted to increase by 23% by 2025 (Haas et al., 2019). In comparison, the plant milk market on a global level in 2016 was $8.51 billion and expected to rise to $24.6 billion by 2025 in the United States alone (Haas et al., 2019). Although dairy products have a history of being well regulated, the regulations for plant-based dairy-like products are not as rigorous. The relationship between dairy products and plant-based products with labeling usually specified for dairy products (i.e., milk, butter, yogurt, cheese) is continuing to evolve with the increasing number of plant-based products coming to market. Manufacturers of traditional dairy products and plant-based products are innovating their labeling to try to reach new consumers as well as retain the business of traditional consumers.

The United States Food and Drug Administration clearly defines standards of identity for food products, including those that are traditional dairy products. Federal regulation 21 CFR 130.8.b states a food does not conform to the definition and standard of identity if it fails to contain any one or more ingredients required by such definition and standard (FDA, 2019a). For a product with dairy labeling, this definition implies the product must contain a form of dairy and not labeling only. Federal regulation 21 CFR 131.110 is the standard of identity for milk and cream. It states, “milk is the lacteal secretion . . . obtained by the complete milking of one or more healthy cows” (FDA, 2019b). This definition does not leave any ambiguity surrounding what is or is not milk. If a product is to be labeled as “milk.”
it must therefore be from a cow. However, this definition changes how a consumer could view plant-based products becoming more common in supermarkets, grocery stores, and convenience stores. Products such as almond milk, oat milk, and coconut milk do not contain any milk as defined in 21 CFR 131.110 (FDA, 2019b), but have the same labeling as bovine milk. The use of the word milk implies that these 2 types of products are comparable.

The Food and Drug Administration (FDA) has the authority to regulate that both standardized and nonstandardized foods be generally named with their common or usual name (HHS and FDA, 2018). The FDA defines the common or usual name of a food is the name by which it is known to the American public and is generally established by common usage (HHS and FDA, 2018). There are, however, considerations from the FDA to using common or usual names that inherently can lead to confusion or mislead consumers (HHS and FDA, 2018). The determination of whether a food is misbranded is not solely based on the name or labeling. Other factors can include where the product is in a grocery store or the physical appearance of the package (HHS and FDA, 2018).

In 2018, the FDA issued a notice and request for comments to better understand how consumers view plant-based products, which included names such as milk, cultured milk, yogurt, and cheese. The FDA (Department of Health and Human Services, 2018) notice explains that the packaging of an increasing number of plant-based products is possessing the same characteristics of the dairy products they are attempting to replace (e.g., cartons, bottles, tubs, sticks). Central to the FDA’s interest in consumer comments are the differences in nutritional value and product performance when comparing plant-based and traditional dairy products (HHS and FDA, 2018). Plant-based products may not necessarily possess the same organoleptic and structural properties as dairy products. These differences could potentially result in consumer dissatisfaction with a plant-based product when compared with a dairy product due to inference of having similar packaging and labeling. Nutritional content differences or deficiencies of plant-based products may not pose an immediate risk to consumers. However, these plant-based products do not equally contribute toward recommended intake from the 2015–2020 Dietary Guidelines for Americans (HHS and FDA, 2018).

The problem is that labeling and marketing of plant-based dairy-like products are misleading and can adversely affect consumers and dairy manufacturers through potential regulatory differences between plant-based dairy-like and traditional dairy products in the United States. The purpose of this review was to understand how these differences could potentially affect litigation by consumer and dairy manufacturers. This review was important to increase understanding of what consumers and manufacturers could do if they felt misled by the labeling of plant-based dairy-like products.

**Research Questions**

For the purpose of this review paper 2 research questions were addressed. The first question is how manufacturers and consumers can seek legal resolution in disputes involving labeling. The second question is about legal precedents that could influence the labeling of plant-based dairy-like products and their effect on manufacturers and consumers.

**MATERIALS AND METHODS**

This study employed a comprehensive review of available literature using the online resources of the Michigan State University libraries. Online literature repositories used for this review include the following: EBSCOhost, EBSCOhost Index to Legal Periodicals & Books Full Text (H. W. Wilson), EBSCOhost Legal Source, Electronic Code of Federal Regulations (eCFR), Food Science and Technology Abstracts, and ProQuest. Government materials sourced from the appropriate agencies or regulatory bodies and potential legislation was used if it has been proposed for consideration and adoption.

Search and selection criteria for literature focused on criteria for material most relevant to plant-based products and their relationship to dairy products. Only peer-reviewed articles and journals were considered. Boolean search terms used included the following: alternative, consumer protection, dairy, farmers, food, label*, mislead*, name, nondairy, plant, plant-based, product, standard of identity, and substitute. Literature was scanned for references to plant-based products and how they relate to traditional dairy products with either a positive or a negative relationship. Materials promoting for or against the use and expansion of plant-based products in the dairy industry were also identified as valuable for the purpose of this review paper. Government materials relating to standard of identity, industry or product specific regulations, proposed regulations, opinions, notices, or public communications that affect plant-based foods, labeling, or dairy products were reviewed.

Inclusion criteria for literature included the following: consumer and manufacturer protection from misleading labeling; litigation involving misleading labeling or plant-based products; and positive or negative effects
on consumers. Exclusion criteria included: plant-based product relationship to vegetarian products, chemical content of plant-based products, manufacturing processes of plant-based or dairy products, and literature published before 1980. Four articles were selected based on the inclusion and exclusion criteria in the process illustrated in Figure 1.

RESULTS AND DISCUSSION

The available literature was limited with respect to the focused research questions. The 4 selected sources each answer a portion of the research questions. The key attributes, strengths, and weaknesses for each selected article are displayed in Table 1. The selected articles were useful in creating discussion on the legal system as it relates to misleading labeling and how the legal system affects consumers and manufacturers.

There were 3 topline findings gained from the review of the 4 sources. First, past litigation has ruled in favor of plant-based product manufacturers by finding that the plant-based labeling in question was not misleading to a reasonable consumer. Second, consumer and manufacturing advocates for dairy products should focus...
more resources on educating consumers rather than litigation if the goal is to promote dairy products. Third, long-term regulatory changes could be made through the Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act (DAIRY PRIDE Act, 2021), which is currently under legislative review.

Summary of Selected Sources

The results section continues with summaries of the 4 selected sources. The summaries are followed by a discussion using the information gathered from the selected sources and the established background information.

The first selected article by Pomeranz (2014) was associated with research question number one. The article describes litigation focused on misleading food label claims. Although relevant to the research question’s broader topic, the article’s main premise is related to health-related label claims and not standard of identity claims. The article did not appear to contain a bias toward consumers or manufacturers.

The second selected article, by Bolton (2017), was associated with research question number 2. The article describes a court case that is often referenced in other articles relating to plant-based food labeling. It proposes solutions for potential perceived gaps in labeling regulations. Even though the specific court case is widely referenced, only a small portion of the article reviews the details of the case. There was potential bias because the European court case has been so widely documented. It was considered that the writings could have been influenced by existing literature on the subject.

The third selected article by Gambert (2019) was associated with research question number 2. The article presents multiple litigations in the United States for various plant-based products. Although it goes in depth about each court case, it is written in a legal style and could potentially be difficult for some readers to follow. The article potentially gives the appearance of bias in favor of plant-based manufacturers based on the specific litigation described. This potential bias was considered and deemed a low risk based on the content of the article.

The fourth and final selected article was written by van Couter et al. (2016) and was associated with research question number 2. van Couter et al. (2016) focused on a singular court case but evenly wrote about the court case and supporting propositions. The writing of van Couter et al. (2016) has some potential bias for focusing on a well-known European court case. However, this case is lesser known than the case described by Bolton (2017), and therefore the potential for bias from previous literature is lower.

DISCUSSION

Food manufacturers have methods through the legal system to address false or misleading food labels of products. Pomeranz (2014) discusses the provisions of the Lanham Act, which gives a manufacturer legal relief if it believes it has been injured by competitor’s misleading labeling of a food (US Patent & Trademark Office, 2013). Evidence must be provided by the plaintiff(s), manufacturers in this case, showing how consumers were misled (Pomeranz, 2014). A less formal and less expensive route for a manufacturer would be through the National Advertising Division of the Council of Better Business Bureaus (NAD; Pomeranz, 2014). Through the claim with the NAD, there is not a requirement to provide evidence of such misleading claims (Pomeranz, 2014). If going through the Lanham Act route, the manufacturer would need to conduct their own surveys of consumers to determine if there is evidence of confusion over the products in question (US Patent & Trademark Office, 2013). This would prevent a manufacturer from engaging in the exercise for purely business-related reasons.

As with manufacturers, consumers have a legal means to act against a manufacturer that they believe put forward a food with misleading claims. States provide protection to consumers through unfair or deceptive acts or practices statutes (Pomeranz, 2014). While these statutes do offer a consumer an avenue for litigation, they can vary in requirements from state to state. Pomeranz (2014) writes that “at least 48 of these unfair or deceptive acts or practices statutes require the plaintiff to have suffered actual injury (often monetary damages) in order to bring a claim for damages” (p. 435–436). A consumer claiming deception with regards to a plant-based product label would have a high bar to reach to receive relief. For the average consumer, one could argue for monetary injury if said consumer purchased a product from a grocery store but later claimed to have been misled by the labeling of that product. Thus, the consumer spent their money on a product they might not have intended to purchase.

There is some precedent for a court siding with a consumer claiming a manufacturer was deceptive through labeling. The Ninth Circuit court ruled Gerber’s fruit snacks depicting various fruits on the front of the packaging, which were not necessarily ingredients in the product, as being deceiving to consumers (Pomeranz, 2014). The key phrase in the court’s ruling was that “reasonable consumers should not be expected to look beyond misleading representations on the front
of the box to discover the truth from the ingredient list” (Pomeranz, 2014, p. 440). This could be the reasonable argument for a consumer against a product with a plant-based product with dairy labeling.

A manufacturer however would have an equally reasonable argument to dismiss litigation brought by a consumer. As Pomeranz (2014) described, if the FDA is currently in the process of rulemaking on the subject in question, then the courts would choose not to usurp the FDA. A manufacturer could argue that by the FDA requesting comment by consumers and manufacturers on the use of dairy labeling for plant-based product be viewed as part of the rulemaking process.

Gambert (2019) describes in the Brooklyn Law Review several legal cases directly involving plant-based products and use of the term “milk.” The 2013 case of Ang v. WhiteWave Foods Co. was brought alleging the manufacturer of products labeled as soy milk and almond milk violated 21 CFR 131.110 (Gambert, 2019). The plaintiff argued that “a reasonable consumer might confuse plant-based beverages such as soy milk or almond milk for dairy milk, because of the use of the word ‘milk’” (Gambert, 2019, p. 812). The court ruled in favor of the defendant. The court held that 21 CFR 131.110 describes what milk is but lacks a definition for what is not milk. This rational may be perplexing because the point of a standard of identity is inherently to define what qualifies as a specific product. However, FDA regulations are not all encompassing. Regulations are created at points in time based on the knowledge and recommendations of the FDA in that moment. The court’s interpretation does make sense in the fact that 21 CFR 131.110 does not specifically state that soymilk may not contain the word milk. This fits into the courts determination that it would not be reasonable to believe a consumer would be confused by the name soy milk (Gambert, 2019). According to Lee et al. (2018), the United Kingdom requires that if a nondairy product uses a dairy designation it must be “clear to the average consumer that the product is not a dairy product and cannot be confused with a dairy product.” As there is no exact standard of identity for the product in the United States, it can be labeled by its common name, which in this case is soy milk. The current standard is qualifying but not disqualifying.

For those in favor of legislative changes, this ruling could add to their rationale to clarify the standard of identity of milk and other dairy products. The WhiteWave Foods case brings forth the interesting topic of a reasonable consumer (Gambert, 2019). If plaintiffs are to argue for the protection of a reasonable consumer, then one must be able to describe what makes a consumer reasonable. A simple assumption is that a reasonable consumer is an educated one. Both regulatory bodies and manufacturers take part in consumer education to varying degrees. Regulatory agencies most commonly engage in education surrounding food safety and dietary guidelines. Manufacturers typically advertise and educate in a more targeted manner toward their specific products. Food product advertising can describe various health claims or how a product adheres to dietary guidelines. The advertisements also can define fundamental characteristics of products and are meant to convey that information to consumers to aid in making a choice. To argue that a reasonable consumer could be confused by plant-based labeling would require proof that said consumer is uneducated regarding the specific product.

This same rational about consumers was used in determination of the 2015 case Gitson v. Trader Joe’s Co. (Gambert, 2019). The court similarly ruled that “the reasonable consumer (indeed, even the least sophisticated consumer) does not think soy milk comes from a cow” (Gambert, 2019, p. 815).

The Trader Joe’s case, as well as the 2018 case of Painter v. Blue Diamond Growers, had a secondary argument by the plaintiffs regarding nutritional content, arguing that the products in question, soy milk and almond milk, are misleading to the point where consumers would believe they contain the same nutritional content as cow milk (Gambert, 2019). Once again, the courts rejected both arguments. The courts found that the products do not purport to be equivalent to or be replacements for cow milk products. As a result, the products would not need to be nutritionally equivalent dairy products, and a reasonable consumer would be able to make that understanding. This rationale builds support for the reasonable consumer argument.

Quagliani (2020) describes the results of a 2018 online survey conducted by the International Food Information Council Foundation, writing that there is some confusion among consumers surrounding both dairy and nondairy milk. The survey asked separately if whole milk or almond milk contained milk from a cow (Quagliani, 2020). Seventy-five percent of consumers surveyed said that almond milk did not contain milk from a cow (Quagliani, 2020). Nine percent of consumers said they believed there was cow milk contained in almond milk, and 16% of consumers said they did not know (Quagliani, 2020). For whole milk, Quagliani (2020) explains that 9 out of 10 consumers said it contained cow milk. This confusion among consumers increased in the same International Food Information Council Foundation survey when asked about skim milk and lactose-free milk. In the survey, 74% of consumers said skim milk contains cow milk, and only 48% of surveyed consumers said lactose-free milk contains cow milk (Quagliani, 2020).
The 2017 case of *Verband Sozialer Wettbewerb eV v. TofuTown.com GmbH* in the European Court of Justice is an example of a court ruling against plant-based products with dairy labeling. The German company TofuTown produced products labeled as soya-toof tofu butter, plant cheese, veggie cheese, and cream (Bolton, 2017). The court ruled based on the 1987 regulation by the European Economic Community (EEC) that the products in question contained restricted words described in (EEC) No 1898/87 (Bolton, 2017). This EEC regulation is very close to the standard identity of milk set forth in the United States through 21 CFR 131.110. Regulation 1898/87 states “milk is said to mean exclusively the normal mammary secretion obtained from one or more milkings” (Bolton, 2017, p. 424). With the regulations being similar, the difference between Europe and the United States appears to be in the matter of enforcement.

Bolton brings up the argument from the perspective of plant-based companies who naturally feel such rules on labeling are unfair. Bolton (2017) argues that the protection offered to vegans and vegan products could be applicable to plant-based companies. Products such as vegan cheese are readily available in grocery stores yet do not garner as much negative attention from dairy manufacturers as products labeled as plant based. Veganism, the practice of a strict vegetarian who does not consume food that comes from animals, according to the Merriam-Webster dictionary (Merriam-Webster, 2020), is a lifestyle belief that offers a level of latitude in the labeling of products. With plant-based products becoming increasingly more common, supporters could argue that a plant-based lifestyle is also more common. However, it must be determined what the differences are between a potential plant-based lifestyle and that of veganism.

Looking at litigation that took place in Belgium between a company producing yogurt and a company producing plant-based products shows that not all litigation has been in favor of plant-based companies. The plant-based products company Alpro put forth advertising comparing their products to yogurt made from dairy (van Couter et al., 2016). One example of this advertising was a bus stop advertisement with the verbiage “Do you like yogurt?” shown next to a plant-based dessert made by Alpro (van Couter et al., 2016). Belgium has similar standard of identity regulations to the United States regarding milk and milk products. These regulations include advertising of a product as a form of labeling. The judge in this case agreed with the plaintiff, a dairy producer, that Alpro was wrong to advertise their plant-based product in such a comparison to a dairy product (van Couter et al., 2016). This type of labeling dispute is not unique to plant-based products and dairy products. The key for the negative result for the plant-based product was that the labeling implied that the product was equivalent to a traditional dairy product. This implicit labeling then brings the plant-based product in conflict with standard of identity labeling. This is in contrast with the Trader Joe’s and WhiteWave Foods cases. In those cases, the plant-based products did not imply any relationship to dairy products of a similar use with consumers.

If consumers or manufacturers continue to desire plant-based products to cease using dairy labeling terms, they could pursue legislative changes rather than litigation. Such potential legislation has been under consideration since 2019. New York Representative Anthony Brindisi helped author a bipartisan letter to then-FDA Commissioner Scott Gottlieb regarding the growing trend of imitation or substitute dairy products labeled with standardized dairy terms (Conway, 2019). Similar to the request of industry representatives, Brindisi and others wrote to urge the FDA Commissioner to make clear that using plant-based descriptions for products alongside dairy terms such as milk, cheese, or yogurt does not create an accurate label (Conway, 2019). The letter again outlines the standard of identity of milk as defined by 21 CFR 131.110 as the basis for regulating plant-based dairy alternative labels (Conway, 2019).

Following Brindisi’s letter was the introduction of House Resolution 1769 into the 116th Congress (DAIRY PRIDE Act, 2021). The bill was titled Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act, or the DAIRY PRIDE Act (DAIRY PRIDE Act, 2021). Congress began H.R. 1769 by referencing nutritional statistics from the 2015–2020 *Dietary Guidelines for Americans* showing that dairy foods are excellent sources of critical nutrients. Consumed at the amounts recommended by the USDA, dairy foods can provide calcium, vitamin D, and magnesium at 67%, 64%, and 17% of the recommended daily intake quantities, respectively (DAIRY PRIDE Act, 2021). The DAIRY PRIDE Act (2021) states that approximately 80% of the United States population does not meet the recommended daily intake of dairy foods. Dissecting into some subgroups, about 30% of adolescent boys, 10% of adolescent females, and 5% of adult females do meet the recommended daily intake of dairy (DAIRY PRIDE Act, 2021). The DAIRY PRIDE Act (2021) frames this concern in H.R. 1769 around the fact that plant-based products have varying amounts of nutritional content and often require fortification to improve the overall nutritional satisfaction of the product. House Resolution 1769 additionally describes sections 131, 133 of 21 CFR that define the standard of identity for milk...
and other dairy products as a clear frame of reference to define various plant-based products as mislabeled (DAIRY PRIDE Act, 2021). The purpose for the bill is to reinforce the power set forth by section 403 of the Food, Drug, and Cosmetic Act. This reinforcement is accomplished by adding specific language to section 403 of the Food, Drug, and Cosmetic Act for “dairy product” and corresponding sections of 21 CFR that define the standard of identity of said dairy products (sections 131, 133, 135.110, 135.115, 135.140) (DAIRY PRIDE Act, 2021). As of mid-2020, H.R. 1769 had not made it out of the Committee on Energy and Commerce for further consideration and was referred to the Subcommittee on Health (Library of Congress, 2019).

Clarification in H.R. 1769 potentially creates a more difficult environment for the FDA to regulate (Decker, 2019). Decker (2019) reports that the FDA has adopted an inconsistent approach to the enforcement of standards of identity. This, in part, has allowed for plant-based dairy alternatives and other alternative products to use otherwise specified food names in their labeling (Decker, 2019). Decker (2019) continues discussing the power struggle between powerful dairy lobbying groups and companies with plant-based product interests over how the labeling should be regulated. Dairy industry representatives asking for enforcement of the law as written and plant-based advocates warning that greater consumer confusion could be created in doing so (Decker, 2019). Invariably the fight over the standard of identity for these products is becoming a battle between the two industries. Again, it seems that increasing consumer education rather than changing a concise regulation to be both qualifying and disqualifying could be the easiest to attempt with the average reasonable consumer. Alternatively, manufacturers of plant-based dairy-like products could alleviate the concerns for confusion by changing their product’s labeling. Some products already have used their slight differences in labeling to differentiate their products from standard dairy products, such as spelling “mylk” rather than “milk.”

CONCLUSIONS

In the United States there are avenues for both consumers and manufacturers to pursue litigation if they believe they have been misled. However, the legal system is designed to require varying degrees of evidence be brought forth depending on the type of complaint being filed. Manufacturers may need to conduct surveys to support their cause, and consumers may need to prove actual monetary or physical injury. This would make it challenging for a consumer or manufacturer to file a claim against a plant-based company only because their product has some similarities to a specific traditional dairy product. Litigation has repeatedly supported plant-based companies on the grounds that reasonable consumers would not be misled by those plant-based products. Based on the litigation it appears that plant-based products do not have a competitive advantage against traditional dairy products related to labeling. This suggests that dairy product advocates should divert resources toward consumer education rather than legal challenges. The opinions of the reasonable consumer could be changed through a targeted education campaign focused on comparing dairy products to plant-based products.

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