
GOT MEAT? THE STATUS OF PLANT-BASED MEAT IN THE
WAKE OF NEW PLANT-BASED MILK GUIDANCE

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I. INTRODUCTION

Traditional meat analogs, or meat substitutes, were developed thousands of years ago in Asia and included simple soybean and wheat derivatives to make tofu and tempeh.¹ In the United States, Loma Linda Foods, which was established in 1890,² produced the first commercially available soy and wheat-based meats (e.g., analogs have a long history as a food source).³ In 1964, the United States Department of Agriculture (USDA)

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¹ Natalie R. Rubio et al., *Plant-Based and Cell-Based Approaches to Meat Production*, NATURE COMM'NS (2020), <https://www.nature.com/articles/s41467-020-20061-y>; Allah Bakhsh et al., *Traditional Plant-Based Meat Alternatives, Current, and Future Perspective: A Review*, 55 J. OF AGRIC. & LIFE SCI. 1, 2 (2021).

² *Sustainable Plant-Based Protein Since 1890*, LOMA LINDA, <https://lomalindabrand.com/about-us/> (last visited Dec. 18, 2023).

³ *Where's the Beef? The History of Plant-Based Meats*, WONDER NEWS ROOM (Sep. 26, 2019), <https://www.blog.askwonder.com/blog/plant-based-meats>.

allowed for soy protein isolates to constitute as much as 2 percent of cooked sausages as part of their standard of identity, a rule which is still in place to this day.⁴ Furthermore, in 2000, the USDA made changes to the National School Lunch Program, School Breakfast Program, Summer Food Service Program, and Child and Adult Care Food Program to allow for soy protein and other vegetable proteins to meet 100 percent of the meat/meat alternative requirement in the school lunch program.⁵ By 2013, technological advancements allowed for evolution beyond vegetable-based meat substitutes to lab-grown meat.⁶ This lab-grown meat is made from cow muscle cells, fetal calf blood, and antibiotics.⁷

Despite the creation of lab-grown meat, plant-based meat alternatives have continued to grow in popularity.⁸ The global dollar growth of plant-based meat products has increased by 44 percent from 2019-2022.⁹ In the United States specifically, plant-based meat sales increased around 46 percent between 2019 and 2020 and evened out at about 1.4 billion dollars yearly from 2020-2022.¹⁰ In comparison, the sale of meat products in the United States in 2022 hit a staggering 86.62 billion dollars.¹¹ Plant-based meat has remained steady, continuing to hold about 2.5 percent of the market share of all packaged meats in the same 2020-2022 time period.¹²

Even with this relatively small percentage of the market, there has been pushback from the meat industry to restrict the way plant-based

⁴ Russ Egbert & Cheryl Borders, *Achieving Success with Meat Analogs*, FOOD TECH. MAG. (Jan. 1, 2006), <https://www.ift.org/news-and-publications/food-technology-magazine/issues/2006/january/features/achieving-success-with-meat-analogs>.

⁵ *Id.*; Modification of the “Vegetable Protein Products” Requirement for the National School Lunch Program, School Breakfast Program, Summer Food Service Program and Child and Adult Care Food Program, 65 Fed. Reg. 12429, 12430 (Mar. 9, 2000) (to be codified at 7 C.F.R. pts. 210, 215, 220, 225, 226).

⁶ *Where’s the Beef? The History of Plant-Based Meats*, *supra* note 3.

⁷ *Id.*

⁸ Emma Ignaszewski & Ben Pierce, *U.S. Retail Market Insights for the Plant-Based Industry*, GOOD FOOD INST., <https://gfi.org/marketresearch/> (last visited Dec. 18, 2023).

⁹ *Id.*

¹⁰ *2022 U.S. Retail Sales Data for the Plant-Based Foods Industry*, PLANT BASED FOODS ASS’N, <https://www.plantbasedfoods.org/2022-u-s-retail-sales-data-for-the-plant-based-foods-industry/> (last visited Dec. 18, 2023).

¹¹ *Meat Department Retail Sales in the United States from 2017 to 2022*, STATISTA, <https://www.statista.com/statistics/1086374/us-meat-department-sales/> (last visited Dec. 18, 2023).

¹² *2022 U.S. Retail Sales Data for the Plant-Based Foods Industry*, *supra* note 10.

meats are labeled.¹³ In recent years, this has taken the form of state action through “meat” labeling statutes, including the Mississippi Meat Inspection Act,¹⁴ the Missouri Meat Advertising Act,¹⁵ the Arkansas Truth in Labeling of Agriculture Products Edible by Humans Act,¹⁶ and the Louisiana Truth in Labeling of Foods Products Act,¹⁷ to name a few.¹⁸ Following the implementation of these statutes, many have led to litigation initiated by companies that produce plant-based meat products.¹⁹ The courts have

¹³ See Joshua Pitkoff, Note, *State Bans on Labeling for Alternative Meat Products: Free Speech and Consumer Protection*, 29 N.Y.U. ENV'T. L. J. 297, 301 (2021).

¹⁴ MISS. CODE ANN. § 75-35-15(4) (2019) (“A food product that contains cultured animal tissue produced from animal cell cultures outside of the organism from which it is derived shall not be labeled as meat or a meat food product. A plant-based or insect-based food product shall not be labeled as meat or meat food product”).

¹⁵ MO. REV. STAT. § 265.494(7) (2018) (“No person . . . shall engage in any misleading or deceptive practices” which includes “[m]isrepresenting the cut, grade, brand, or trade name, or weight, or measure of any product or misrepresenting a product as meat that is not derived from harvested production livestock or poultry”).

¹⁶ ARK. CODE ANN. § 2-1-305(6) (2019) (“A person shall not misbrand or misrepresent an agricultural product that is edible by humans, including without limitation by: . . . [r]epresenting the agricultural product as meat or a meat product when the agricultural product is not derived from harvested livestock, poultry, or cervids.”).

¹⁷ LA. STAT. ANN. § 3:4744(B)(4) (2019). Stating in relevant part:

No person shall intentionally misbrand or misrepresent any food product as an agricultural product through any activity including: . . . [r]epresenting a food product as meat or a meat product when the food product is not derived from a harvested beef, pork, poultry, alligator, farm-raised deer, turtle, domestic rabbit, crawfish, or shrimp carcass.

Id.

¹⁸ As of the 2020 Congressional session, fourteen states enacted truth in labeling laws: Montana, Wyoming, North Dakota, South Dakota, Oklahoma, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, Kentucky, South Carolina, and Maine. See *Truth in Labeling Laws(uits) – Update*, NAT'L AGRIC. L. CTR. (Dec. 10, 2020), <https://nationalaglawcenter.org/truth-in-labeling-lawsuits-update/>.

¹⁹ See *Upton's Nats. Co. v. Stitt*, No. CIV-20-938-F, 2020 U.S. Dist. LEXIS 216883, at *2-3, *2 n.2 (W.D. Okla. Nov. 19, 2020) (Plaintiff, a company that sells plant-based foods nationwide, is seeking injunctive relief against an Oklahoma statute that they argue prohibits sellers of plant-based foods from using the term “meat.”); see also *Turtle Island Foods SPC v. Strain*, 594 F. Supp. 3d 692, 694-97 (M.D. La. 2022) (Plaintiff, a company that produces plant-based meat products in Louisiana, brought a claim regarding the constitutionality of Louisiana's Truth in Labeling of Food Products Act.); *Turtle Island Foods SPC v. Soman*, 424 F. Supp. 3d 552, 561 (E.D. Ark. 2019) (Plaintiff, a company that produces and sells plant-based meats, is bringing a motion for declaratory and injunctive relief against the Arkansas Truth in Labeling Law to deem the statute unconstitutional.); *Turtle Island Foods SPC v. Richardson*, 425 F. Supp. 3d 1131, 1134-35 (E.D. Mo. 2019) (Plaintiffs, a non-profit organization and a plant-based meat company, filed a motion for injunctive relief based on the constitutionality of the Missouri statute regarding the labeling of meat.).

come out with conflicting opinions on whether these statutes are constitutional with regards to the restriction of the term “meat”²⁰ and whether there should be a requirement to have a prominent disclaimer on the label.²¹

Specifically, the courts are grappling with the question of whether prohibiting the term “meat” on plant-based meat products violates the First Amendment right to free speech based on commercial speech.²² This question is governed by the test laid out in *Central Hudson Gas & Electric Corporation v. Public Service Commission*.²³ The *Central Hudson* test lays out four factors to consider when determining whether the law burdens free commercial speech: “(1) whether the commercial speech at issue concerns unlawful activity or is misleading; (2) whether the governmental interest is substantial; (3) whether the challenged regulation directly advances the government’s asserted interest; and (4) whether the regulation is no more extensive than necessary to further the government’s interest.”²⁴ Using the *Central Hudson* test means the federal government is leaving the question of plant-based meat labeling to a balance of factors in the court system instead of allowing the individuals with expertise within the Food and Drug Administration (FDA) and the USDA to regulate this issue.

This paper argues that the FDA must step in to determine how meat analogs should be labeled to address the current confusion regarding conflicting judicial precedents and the ongoing research regarding the glaring differences in the nutritional composition of “traditional” meat compared to plant-based meats. Section II, History, Processing, and Political Pushback of Plant-Based Meat Products, explains the background of the plant-based meat industry including the political landscape, the legal definition of meat, and the production process for plant-based meat alternatives. Section III, State-Based Responses to Meat Alternatives, gives an overview of two states that have implemented truth in labeling laws to restrict the use of the term meat on plant-based meat alternatives. Section

²⁰ *Truth in Labeling Laws(uits) – Update*, *supra* note 18.

²¹ *See, e.g., Upton’s Nats. Co.*, 2020 U.S. Dist. LEXIS 216883, at *11 (denying the plaintiff’s Motion for Preliminary Injunction because the requirement of disclosing that the product is plant-based is reasonably related to the state’s interest in preventing confusion or deception of consumers); *Turtle Island Foods SPC v. Soman*, 632 F. Supp. 3d 909, 940, 948 (E.D. Ark. 2022) (holding that Arkansas was permanently enjoined from enforcing certain provisions of the statute against Turtle Island Foods based on the labels not being deceptive).

²² *Soman*, 424 F. Supp. 3d at 571, 573; *Richardson*, 425 F. Supp. 3d at 1139.

²³ 447 U.S. 557 (1980).

²⁴ *Soman*, 424 F. Supp. 3d at 571 (quoting 1-800-411-Pain Referral Serv., LLC v. Otto, 744 F.3d 1045, 1055 (8th Cir. 2014)).

IV, Proposed Guidance on Plant-Based Milk, gives an overview of the proposed guidance laid out by the FDA for plant-based milk products and shows why the same type of regulation should be implemented for plant-based meat products by analyzing two studies conducted on the nutritional differences between “traditional” meat and plant-based meat alternatives.

Section V, Proposed Resolution, proposes a better option than the FDA guidance. The FDA should promulgate a regulation similar to the new guidance for labeling plant-based milk products. The guidance for plant-based milk products would allow for the term “milk” to be put on plant-based “dairy” beverages as long as there is a disclaimer about the nutritional differences between that product and conventional milk.²⁵ Likewise, the FDA should allow the term “meat” to stay on labels of plant-based products if there is a qualifier describing the nutritional differences between the meat analog as compared to the “traditional” meat product it is meant to invoke. A regulation would be a better option as opposed to guidance because a regulation has consequences on companies whereas a guidance document is advisory in nature.²⁶ Furthermore, the FDA and the USDA should enter into a memorandum of understanding regarding the term “meat” on these products to prevent the USDA from changing its current standard of identity for meat.

The issue of regulating plant-based meat is not just centered around those already consuming it. It is predicted that by 2040, 35 percent of the meat market will be cultured meat, 25 percent will be plant-based meat, and a mere 40 percent will be conventional meat.²⁷ Also, it has been predicted that meat production will be unsustainable by 2050 based on current and projected consumption rates.²⁸ As the majority of the meat market will soon consist of “non-conventional” meat as compared to “conventional” meat, the issue of labeling regarding the origin of “meat”

²⁵ See Ctr. for Food Safety & Applied Nutrition, *Labeling of Plant-Based Milk Alternatives and Voluntary Nutrient Statements: Guidance for Industry*, U.S. FOOD & DRUG ADMIN. 10–16 (Feb. 2023), <https://www.fda.gov/media/165420/download>.

²⁶ Michael Berman, *Laws v. Regulations v. Guidance: What's the Difference?*, NCONTRACTS (Sept. 13, 2018), <https://www.ncontracts.com/nsight-blog/laws-vs-regulations-vs-guidance-new-interagency-statement-provides-clarification> (A regulation “has the force of law because it is implementing a law.” On the other hand, “an institution can’t violate a guidance,” but instead it can be used as “examples of best practices for complying with laws and regulations.”).

²⁷ Carsten Gerhardt et al., *How Will Cultured Meat and Meat Alternatives Disrupt the Agricultural and Food Industry?*, 16 INDUS. BIOTECHNOLOGY 257, 269 (Oct. 15, 2020), <https://doi.org/elon.idm.oclc.org/10.1089/ind.2020.29227.cge>.

²⁸ Allah Bakhsh et al., *Traditional Plant-Based Meat Alternatives, Current, and Future Perspective.: A Review*, 55 J. OF AGRIC. & LIFE SCI. 1, 1 (2021).

and the nutritional components of “meat” will be a major issue for all consumers.

II. HISTORY, PROCESSING, AND POLITICAL PUSHBACK OF PLANT-BASED MEAT PRODUCTS

The FDA and the USDA share responsibility related to the safety of our food.²⁹ The USDA regulates the production of meat, poultry, and egg products, while the FDA regulates the production of everything else, including shell eggs and milk/milk products.³⁰ The USDA has defined meat as:

[T]he part of the muscle of any cattle, sheep, swine, or goats which is found in the tongue, diaphragm, heart, or esophagus, with or without the accompanying and overlying fat, and the portion of bone (in bone-in products such as T-bone or porterhouse steak), skin, sinew, nerve, and blood vessels which normally accompany the muscle tissue and that are not separated from it in the process of dressing.³¹

Both the FDA and the USDA have determined when a food product will be considered misbranded.³² Under the Meat Inspection Act, a meat or meat food product can be deemed misbranded if “its labeling is false or misleading in any particular”; “it is offered for sale under the name of another food”; or “if it is an imitation of another food, unless its label bears, in type of uniform size and prominence, the word “imitation” and immediately thereafter, the name of the food imitated.”³³ The Food, Drug, and

²⁹ *What FDA Does and Does Not Regulate*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/animal-veterinary/animal-health-literacy/what-fda-does-and-does-not-regulate> (last visited on Dec. 18, 2023).

³⁰ *Id.*; *FDA or USDA Jurisdiction?*, FDA READER (Feb. 27, 2019), <https://www.fda-reader.com/blog/fda-or-usda-jurisdiction> (The USDA also regulates any food that contains more than 2% cooked meat, more than 3% raw meat, more than 2% cooked poultry meat, or more than 10% cooked poultry skins.).

³¹ 9 C.F.R. § 301.2 (2019).

³² *Id.*; Food, Drug, and Cosmetic Act, 21 U.S.C. § 343(a)-(c) (1938).

³³ 9 C.F.R. § 301.2 (A meat or meat product will also be considered misbranded “if the container is so made, formed, or filled as to be misleading”; if the package does not bear the “name and place of business of the manufacturer” and an “accurate statement of the quantity of the contents”; if any information that is mandatory on the label is not “prominently placed”; if it does not meet the standard of identity, but purports to do so; if it does not meet the standard of fill for the product if there is one; if it fails to contain an inspection legend when it is mandatory to do so; if it “contains any artificial flavoring, artificial coloring, or chemical preservative” without disclosing; or if it purports to have “special dietary uses” without a label “concerning its vitamin, mineral, and other dietary properties.”).

Cosmetic Act contains a lot of the same language regarding misbranding food products, stating:

[A] food shall be deemed to be misbranded if (1) its labeling is false or misleading in any particular . . . [i]f it is offered for sale under the name of another food . . . [i]f it is an imitation of another food, unless its label bears, in type of uniform size and prominence, the word “imitation” and, immediately thereafter, the name of the food imitated.³⁴

Therefore, the FDA and the USDA have many of the same requirements regarding when a product will be deemed misbranded.

The FDA has several civil enforcement tools at its disposal when a product is misbranded, including warning letters, import alerts, recalls, debarments,³⁵ and civil money penalties.³⁶ The FDA will usually allow companies to comply voluntarily by sending a warning letter before other enforcement actions are taken.³⁷ There have been warning letters issued by the FDA regarding other plant-based food products such as soy milk³⁸ and vegan mayonnaise,³⁹ but there are no current warning letters for plant-based meats. Within these warning letters, the FDA contended that these plant-based products were misbranded for not meeting the standard of identity of the foods they claimed to be.⁴⁰

³⁴ 21 U.S.C. § 343(a)–(c) (A food can also be deemed misbranded if the container is misleading; if the package does not contain the “name and place of business of the manufacturer” and “an accurate statement of the quantity of the contents”; if the information required on the label is not “prominently placed”; if it purports to be a food with a standard of identity when it does not meet the standard of identity; if it does not meet the standard of fill requirements; and if it has inaccurate nutritional information.).

³⁵ KATHRYN B. ARMSTRONG & JENNIFER A. STAMAN, CONG. RSCH. SERV., R43609, ENFORCEMENT OF THE FOOD, DRUG, AND COSMETIC ACT: SELECT LEGAL ISSUES 9, 13 (2018) (A debarment prohibits “corporations or individuals from participating in certain FDA-regulated activities based on their related conduct.”).

³⁶ *Id.* at 13.

³⁷ *Id.* at 9.

³⁸ Mary Ellen Shoup, *Should Soy Milk Really Be Called ‘Milk’? Food Group Seeks Clarity from FDA*, DAIRY REP. (June 13, 2016), <https://www.dairyreporter.com/Article/2016/06/14/Food-group-seeks-clarity-from-FDA-over-soy-milk-definition> (In 2008, the FDA issued a warning letter to Lifesoy Inc. stating that the “company’s use of ‘soy milk’ [was] improper because the product did not contain dairy milk.”).

³⁹ See Tanya Basu, *FDA Says Vegan Mayonnaise Can’t Be Called Mayo*, TIME (Aug. 25, 2015, 1:42 PM), <https://time.com/4009893/hampton-creek-just-mayo-vegan-egg/> (On August 12, 2015, Hampton Creek Foods, Inc. was sent a warning letter regarding their product Just Mayo. The FDA stated that the company could not have the term mayo on the label because the standard of identity of mayo includes eggs and this product was egg-free.).

⁴⁰ *Id.*; Shoup, *supra* note 38.

A. *History and Processing of Plant-Based Meat Alternatives*

As meat alternatives have become more prominent, they have been separated into two distinct categories: traditional (simple derivatives) and novel (products that are near equivalent replacements of traditional meat products).⁴¹ Traditional meat alternatives are those that were created thousands of years ago and originally included simple derivatives from plants such as soybeans and wheat.⁴² These “traditional” meat alternatives have now morphed into “replacements” for animal-based meat by “attempt[ing] to replicate the taste and texture of meat.”⁴³ On the other hand, novel meat alternatives are grown in laboratories from animal cell cultures.⁴⁴ This process uses the basic elements needed to build muscle and fat, allowing for the same biological process that happens inside an animal.⁴⁵ The novel and traditional products have continued to grow in popularity with the plant-based meat and seafood retail industry generating 6.1 billion dollars in global sales in 2022.⁴⁶

Plant-based meat alternatives have slowly changed from relatively simple derivatives to products formed as “near equivalent replacements for [animal-based meat] with regard to taste, texture, and nutrition.”⁴⁷ The process of producing the present plant-based meat alternatives can be divided into a three-step process: (1) protein isolation and functionalization; (2) formulation; and (3) processing.⁴⁸ In the first step “[t]arget plant-proteins are extracted from plants,”⁴⁹ some of which will be processed “to get rid of the parts of the plants” that processors do not want.⁵⁰ In the second step, “plant proteins are mixed with [other] ingredients to develop meat textures.”⁵¹

⁴¹ Rubio et al., *supra* note 1.

⁴² *Id.*

⁴³ Pitkoff, *supra* note 13, at 299.

⁴⁴ JOEL GREENE & SAHAR ANGADJIVAND, CONG. RSCH. SERV., IF10947, REGULATION OF CELL-CULTURED MEAT 1 (2018).

⁴⁵ *Cultivated Meat*, GOOD FOOD INST., <https://gfi.org/cultivated/> (last visited Dec. 18, 2023).

⁴⁶ Caroline Bushnell et al., *2022 State of the Industry Report: Plant-based meat, seafood, eggs, and dairy*, GOOD FOOD INST. 8 (2022), <https://gfi.org/wp-content/uploads/2023/01/2022-Plant-Based-State-of-the-Industry-Report.pdf>.

⁴⁷ Rubio et al., *supra* note 1.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *The Science of Plant-based Meat*, GOOD FOOD INST., <https://gfi.org/science/the-science-of-plant-based-meat/> (last visited Dec. 18, 2023).

⁵¹ Rubio et al., *supra* note 1.

In the final step “[t]he mixture of plant proteins and other ingredients undergo protein reshaping processes to form a meat-like texture.”⁵² A common technology used to process plant-based meat products is extrusion.⁵³ “During extrusion, proteins undergo thermal and mechanical stresses by heating the barrel and shearing of the screws.”⁵⁴ A second common type of processing is shear cell technology.⁵⁵ Under this fairly new technology, the product is placed in between two cylinders heated by steam, which allows for “larger pieces of fibrous meat analogs.”⁵⁶

B. Industry and Political Pushback

The growth in popularity of plant-based meat alternatives has caused pushback from the meat industry regarding how these “meat” products should be labeled.⁵⁷ A lot of this fighting has to do with conventional agriculture wanting to control the market and ensure there will not be a significant economic impact on the conventional meat industry.⁵⁸ The Plant-Based Foods Association, an industry trade association, was founded to represent the nation’s plant-based food companies.⁵⁹ This association has joined the fight regarding plant-based meat labeling by establishing voluntary standards regarding how meat analogs should be labeled.⁶⁰

⁵² *Id.*

⁵³ See Tara McHugh, *How Plant-Based Meat and Seafood Are Processed*, INST. OF FOOD TECHS. (Oct. 1, 2019), <https://www.ift.org/news-and-publications/food-technology-magazine/issues/2019/october/columns/processing-how-plant-based-meat-and-seafood-are-processed>.

⁵⁴ *Id.*

⁵⁵ See *id.*

⁵⁶ *Id.*

⁵⁷ Pitkoff, *supra* note 13, at 301; Nathan A. Beaver, *What’s in a Name? The Plant-Based Foods Labeling Debate*, FOLEY & LARDNER LLP (Oct. 8, 2019), <https://www.foley.com/en/insights/publications/2019/10/whats-in-a-name-plant-based-foods-labeling-debate>.

⁵⁸ See Andy Amakihe, *Burger, Chops, & Vegetable Crops: Constitutional Rights and the “War” on Plant-Based “Meat”*, 48 RUTGERS L. REC. 119, 123 (2021) (“There has been evidence to support speculation that the animal agriculture industry is fighting to suppress the growth of alternative products . . . [t]he dairy and meat industries have declined in growth over time while the plant-based food industry is seeing increases in revenue.”).

⁵⁹ *About*, PLANT BASED FOODS ASS’N, <https://www.plantbasedfoods.org/about/> (last visited Dec. 18, 2023).

⁶⁰ *Voluntary Standards for the Labeling of Meat Alternatives in the United States*, PLANT BASED FOODS ASS’N 1–2 (Dec. 2019), <https://www.plantbasedfoods.org/wp-content/uploads/PBFA-Labeling-Standards-for-Meat-Alternatives.pdf> (These standards state that plant-based products can have “references to types of animal-meat” as long as there are qualifiers on the label to “clearly indicate that the product is plant-based or vegetarian.”).

The debate over the “correct” way to label meat alternatives has even seeped into the political system with Congress debating the issue and trying to encourage the FDA to take a stance.⁶¹ Specifically, in a report accompanying a bill introduced in 2022, the House was concerned about assertions regarding how plant-based labeling was misleading and deceptive.⁶² The House committee then directed the “FDA to provide clarity around the labeling of plant-based foods that use traditional meat, dairy, and egg terminology.”⁶³ Furthermore, Congress has tried to take direct action regarding plant-based products by introducing bills such as the Dairy Pride Act,⁶⁴ which would not allow the term “milk” on plant-based milk products.⁶⁵

This type of pushback from Congress has been prevalent with plant-based meat labeling as well, as shown through members of Congress trying to pass bills such as the “Real Marketing Edible Artificials Truthfully Act of 2019.”⁶⁶ Under this Act, “any imitation meat food product, beef, or beef product shall be deemed to be misbranded unless its label bears, in type of uniform size and prominence, the word ‘imitation’ immediately before or after the name of the food”⁶⁷ Senator Fisher, one of the senators that introduced the bill, argued that “it will protect consumers from deceptive marketing practices.”⁶⁸ Also, states have begun enacting “truth in

⁶¹ *House Asks FDA to Clarify Plant-Based Food Labels*, KELLER & HECKMAN: DAILY INTAKE (July 7, 2021), <https://www.dailyintakeblog.com/2021/07/house-asks-fda-to-clarify-plant-based-food-labels/>.

⁶² H.R. REP. NO. 117-82, at 100 (2022).

⁶³ *Id.*

⁶⁴ H.R. 2828, 117th Cong. (2021) (The purpose of the act was stated as “[n]o food may be introduced or delivered for introduction into interstate commerce using a market name for a dairy product if the food does not meet the criterion set forth for dairy products under paragraph (z)(2) of section 403 of the Federal Food, Drug, and Cosmetic Act.”).

⁶⁵ *Id.* at 5–6; *U.S. Senator Tammy Baldwin Stands Up for Wisconsin Dairy Farmers*, TAMMY BALDWIN U.S. SEN. FOR WIS. (Jan. 12, 2017), <https://www.baldwin.senate.gov/news/press-releases/dairy-pride-act> (In endorsing the act, Baldwin stated, “[i]mitation products have gotten away with using dairy’s good name for their own benefit, which is against the law and must be enforced.”).

⁶⁶ H.R. 4881, 116th Cong. (2019).

⁶⁷ *Id.* at 4–5.

⁶⁸ *Senator Fischer Introduces Real Meat Act to End Deceptive Labeling of Imitation Meat Products*, DEB FISCHER U.S. SEN. FOR NEB. (Dec. 11, 2019), <https://www.fischer.senate.gov/public/index.cfm/2019/12/senator-fischer-introduces-real-meat-act-to-end-deceptive-labeling-of-imitation-meat-products> (“Beef is derived from cattle— period.”).

labeling laws”⁶⁹ arguing that the term “meat” should be left off of meat analog packages to protect consumers from being misled or confused by false or misleading labeling.⁷⁰

Historically, the FDA had not taken a hard stance on plant-based products but instead discussed an overhaul of all food standards of identity.⁷¹ However, the FDA has provided some insight into its stance on plant-based products with comments such as “an almond doesn’t lactate” which came from the former commissioner of the FDA, Scott Gottlieb.⁷² Based on pressure from Congress, on February 23, 2023, the FDA published draft guidance on the labeling of plant-based milk alternatives⁷³ and asked for comments.⁷⁴ In response, members of the House, including Senator Baldwin, re-introduced the Dairy Pride Act.⁷⁵ This caused the FDA to reopen the comment period on the proposed guidance for plant-based

⁶⁹ Jana Caracciolo, *Truth in Labeling Laws(suits) – Update and Recent Developments*, NAT’L AGRIC. L. CTR. (Apr. 12), <https://nationalaglawcenter.org/truth-in-labeling-lawsuits-update-and-recent-developments/> (“Truth in Labeling” laws are those that govern “the words or phrases that food manufacturers can use to identify alternative protein products (plant-based, insect-based, or cell-cultured).”).

⁷⁰ See, e.g., ARK. CODE ANN. § 2-1-301 (2019).

⁷¹ See Beaver, *supra* note 57.

⁷² Alexander Nieves, *Gottlieb: FDA to Crack Down on Labeling Nondairy Products as ‘Milk,’* POLITICO (July 17, 2018, 11:25 AM), <https://www.politico.com/story/2018/07/17/almond-lactate-nondairy-milk-scott-gottlieb-725974>. Gottlieb also foreshadowed the FDA’s proposed guidance on plant-based milk when he stated that FDA “plans to soon start gathering public comment before taking next steps in redefining the rules for milk products.” *Id.*

⁷³ Ctr. for Food Safety & Applied Nutrition, *supra* note 25, at 7–8, 15:

[C]onsumers understand plant-based milk alternatives to be different products than milk . . . [however, the] FDA recommends that plant-based milk alternatives that use the term “milk” in their name and have a nutrient composition different than milk bear an additional nutrient statement on the product label describing how it is nutritionally different. . . Additionally, consumer research indicated that, while the majority of consumers understand that milk and plant-based milk alternatives are different products, consumers may not understand the nutritional differences between them.

Id.

⁷⁴ Labeling of Plant-Based Milk Alternatives and Voluntary Nutrient Statements; Draft Guidance for Industry; Availability; Agency Information Collection Activities; Proposed Collection; Comment Request; Comment Request, 88 Fed. Reg. 11449, 11450 (Feb. 23, 2023).

⁷⁵ Taylor Leach, *Dairy Pride Act Re-Introduced in Effort to Combat Alternative Milk Mislabeling*, DAIRY HERD MGMT. (Mar. 2, 2023), <https://www.dairyherd.com/news/policy/dairy-pride-act-re-introduced-effort-combat-alternative-milk-mislabeling> (statement of Senator Jim Risch) (“It is past time that the Food and Drug Administration enforce its own definitions for dairy terminology, prevent imitation products from deceiving the consumers, and start advocating for farmers who feed us.”).

milk products which extended to July 31, 2023.⁷⁶ However, this new guidance has not stopped states from enacting statutes regarding how plant-based products should be labeled.

III. STATE-BASED RESPONSES TO MEAT ALTERNATIVES

With the lack of consistency from the federal government, states have taken the issue of plant-based labeling into their own hands, which has caused confusion and implications of the First Amendment right to commercial free speech.⁷⁷ The First Amendment “offers food companies some freedom to label their product as they wish,” but regulations on food labeling can be found constitutional “if the government can show there exists a substantial government interest in prohibiting or requiring certain speech, and the government action is reasonable.”⁷⁸ Courts are “consistently inconsistent when deciding what food product labels are misleading, what constitutes a governmental interest, what regulations directly advance a governmental interest, and what regulations are too extensive.”⁷⁹ As of 2023, fifteen states have enacted legislation on plant-based meat labeling.⁸⁰ These laws continue to be proposed and enacted in other states, including

⁷⁶ Labeling of Plant-Based Milk Alternatives and Voluntary Nutrient Statements; Draft Guidance for Industry; Availability; Agency Information Collection Activities; Proposed Collection; Comment Request; Reopening of the Comment Period, 88 Fed. Reg. 26561, 26561–62 (May 1, 2023).

⁷⁷ See David H. Siegel, *Plant-Based Food Labeling Legislative Update*, NAT’L L. REV. (Nov. 5, 2021), <https://www.natlawreview.com/article/plant-based-food-labeling-legislative-update> (discussing that laws regarding plant-based meat labeling have been struck down in Arkansas but upheld in Missouri). New laws of this nature will likely “be challenged as unconstitutional restrictions on the speech of plant-based food companies.” *Id.*

⁷⁸ Jana Caracciolo, *Focus on Food: Understanding Labeling and the First Amendment*, NAT’L AGRIC. L. CTR., <https://nationalaglawcenter.org/focus-on-food-understanding-labeling-and-the-first-amendment/> (last visited Dec. 18, 2023).

⁷⁹ William Cusack, Note, *Trouble with Names: Commercial Speech and a New Approach to Food Product Label Regulation*, 17 DUKE J. CONT. L. & PUB. POL’Y 119, 121 (2021) (footnote omitted) (first citing *Int’l Dairy Foods Ass’n v. Amestoy*, 92 F.3d 67, 74 (2d Cir. 1996); then citing *Am. Meat Inst. v. U.S. Dep’t Agric.*, 760 F.3d 18, 23–25 (D.C. Cir. 2014); and then citing *44 Liquormart, Inc. v. Rhode Island*, 517 U.S. 484 (1996)).

⁸⁰ See *Truth in Labeling Laws(uits) – Update*, *supra* note 18; see also Jason Tidd, *Kansas governor signs law requiring disclaimers on veggie burgers, plant-based meat labels*, TOPEKA CAP-J, <https://www.cjonline.com/story/business/agricultural/2022/05/05/kansas-fake-meat-label-law-targets-plant-based-alternatives/9663063002/> (May 6, 2022, 11:38 AM); KAN. STAT. ANN. § 65-665(m) (2023) (explaining that a product will be considered misbranded if it is “a meat analog and: (1) [i]ts labeling utilizes an identifiable meat term; and (2) the labeling does not have a disclaimer in a prominent and conspicuous font size, in close proximity to the identifiable meat term . . .”).

a proposed statute in Texas.⁸¹ Some of these state laws have led to litigation. This section of the paper will analyze the language of the Truth in Labeling statutes and litigation surrounding them from two states: Missouri and Arkansas.⁸²

A. Missouri Statute and Litigation

In 2018, Missouri enacted the Meat Advertising Act.⁸³ This was the first state to begin regulating the term “meat,” with its supporters believing “it [would] reduce consumer confusion in the supermarket isles, as well as protect the interests of ranchers.”⁸⁴ Under the Missouri Act, no individual could engage in “misleading or deceptive practices,” which included “misrepresenting the cut, grade, brand or trade name, or weight or measure of any product, or misrepresenting a product as meat that is not derived from harvested production livestock or poultry.”⁸⁵ In a memorandum from the governor of Missouri, there was clarification that Missouri would not prosecute companies that have plant-based meat products with a “prominent” disclaimer on the package.⁸⁶

⁸¹ Bethany Bunge et al., *Texas Considers Truth in Labeling Law for Meat-alternative Products: Potential Consequences in the Marketplace and the Courtroom*, DLA PIPER (May 18, 2021), <https://www.dlapiper.com/en/insights/publications/2021/05/texas-considers-truth-in-labeling-law-for-meat-alternative-products-potential-consequences> (“Proposed HB 316 prohibits selling products that contain labels or marketing that compares plant-based food to meat or that state that the food ‘imitates meat, beef, chicken, or pork’ when, in fact, the food does not contain any of these products.”).

⁸² Three of these states, Missouri, Oklahoma, and Arkansas, are in the top 11 largest beef-producing states which may show why they are enacting these laws. Stuart, *11 Largest Beef Producing States in the US*, FAUNA FACTS (Sept. 8, 2021), <https://faunafacts.com/cows/beef-producing-states/>.

⁸³ MO. REV. STAT. Tit. 17, § 265.494 (2018).

⁸⁴ Christina Troitino, *Missouri Becomes First State to Start Regulating Meat Alternative Labels*, FORBES (Aug. 31, 2018, 4:30 AM), <https://www.forbes.com/sites/christinatroitino/2018/08/31/missouri-now-regulating-meat-alternative-labels-as-regulatory-war-gets-bloody/?sh=425ff0446886>.

⁸⁵ MO. REV. STAT. § 265.494(7).

⁸⁶ Memorandum from Director’s Office of Dep’t of Agric. State of Mo to Meat Inspection Program 2 (Aug. 30, 2018), <https://agriculture.mo.gov/animals/pdf/missouri-meat-advertising-guidance.pdf> (There will not be a referral for prosecution of products that contain the following: “prominent statement on the front of the package, immediately after the product name, that the product is ‘plant-based,’ ‘veggie,’ ‘lab-grown,’ ‘lab-created,’ or a comparable qualifier; and prominent statement on the package that the product is ‘made from plants,’ ‘grown in a lab,’ or a comparable disclosure.”).

In *Turtle Island Foods, SPC v. Thompson*, Plaintiffs, Tofurky⁸⁷ and the Good Food Institute,⁸⁸ alleged the Missouri Act violated their right to free speech.⁸⁹ Plaintiffs filed for a preliminary injunction in district court based on “the likelihood of success on their First Amendment claim.”⁹⁰ The district court held that “Plaintiffs had not shown a substantial likelihood of success on the merits of their First Amendment claim because the Statute d[id] not prohibit their commercial speech.”⁹¹ Nevertheless, Plaintiffs appealed and argued that the “district court erred in its interpretation of the Statute.”⁹²

First, the Court of Appeals determined that the district court applied the correct standard of review by using *Central Hudson*.⁹³ However, the Court of Appeals determined that none of the labels presented by the Plaintiffs “misrepresent[ed] their product as meat.”⁹⁴ The Court stated the burden is on the plaintiffs to demonstrate they are likely to succeed on the merits.⁹⁵ The Court of Appeals made clear that “[t]he fully developed factual record may eventually include more of Plaintiffs’ marketing materials and labels and may be materially different from that initially before the district court,” so this holding may provide little guidance on other labels.⁹⁶ This litigation is still ongoing, and after being remanded to the district court, Plaintiffs were granted their Motion to Compel in part regarding certain discovery documents that were due to the district court on February 16, 2023.⁹⁷

B. Arkansas Statute and Litigation

⁸⁷ Tofurky is a plant-based meat company that was established in 1980 in Oregon. *Our Roots*, TOFURKY, <https://tofurky.com/our-story/our-roots/> (last visited Dec. 18, 2023).

⁸⁸ “The Good Food Institute is a nonprofit think tank and international network of organizations working to accelerate alternative protein innovation.” *Plant-Based and Cultivated Meat Innovation*, GOOD FOOD INST., <https://gfi.org/> (last visited Dec. 18, 2023).

⁸⁹ *Turtle Island Foods SPC v. Thompson*, 992 F.3d 694, 697 (8th Cir. 2021).

⁹⁰ *Id.* at 698.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.* at 701.

⁹⁴ *Id.*; Under the Act to misrepresent “means the use of any untrue, misleading or deceptive oral or written statement, advertisement, label, display, picture, illustration, or sample.” Meat Advertising Act, MO. REV. STAT. § 265.490(6) (2018).

⁹⁵ *Thompson*, 992 F.3d at 699.

⁹⁶ *Id.* at 702.

⁹⁷ *Turtle Island Foods v. Thompson*, No. 18-CV-04173, 2022 U.S. Dist. LEXIS 237719, at *6 (W.D. Mo. Dec. 14, 2022).

In 2019, Arkansas enacted the Truth in Labeling of Agriculture Products Edible by Humans Act.⁹⁸ This statute prevents an individual from misbranding or misrepresenting a food product by “representing the agricultural product as meat or a meat product when the agricultural product is not derived from harvested livestock, poultry, or cervids.”⁹⁹ The Arkansas Act states “[t]he purpose of this subchapter is to protect consumers from being misled or confused by false or misleading labeling of agriculture products that are edible by humans.”¹⁰⁰

The same company that brought a challenge against the Missouri statute, Turtle Island Foods (Tofurky), brought an action in Arkansas about its truth in labeling law.¹⁰¹ Tofurky brought a motion for preliminary injunction arguing that the act “represent[s] a restriction on commercial speech that prevents companies from sharing truthful and non-misleading information about their products”¹⁰² Tofurky uses traditional meat-based terms and “assert[ed] that it cannot accurately and effectively describe its products without comparison to the conventional meat products with flavor profiles Tofurky’s products are designed to invoke.”¹⁰³

Tofurky argued that the Act “[did] not advance a substantial government interest and [was] not appropriately tailored to any government interest.”¹⁰⁴ On the other hand, the State asserted that “Tofurky’s commercial speech was ‘inherently misleading’ and thus outside of the First Amendment’s protection.”¹⁰⁵ The court held that “Tofurky is likely to prevail on the merits of its argument that the labels’ repeated indications that the food products contained in these packages contain no animal-based meat dispel consumer confusion and render the speech not inherently misleading” and thus granted a preliminary injunction.¹⁰⁶ In a subsequent case, the state of Arkansas was permanently enjoined from “enforcing [§ 2-1-305(6), (8), and (9)] against Tofurky” and “from enforcing [§2-1-305(2) and (5)] against Tofurky’s labels in the record and similar materials of

⁹⁸ Truth in Labeling of Agriculture Products Edible by Humans, ARK. CODE ANN. § 2-1-305 (2019).

⁹⁹ § 2-1-305(6). This act also prevents representing an agricultural product as beef, pork, or rice, when it is not beef, pork, or rice. § 2-1-305(7)–(9).

¹⁰⁰ § 2-1-301.

¹⁰¹ Turtle Island Foods SPC v. Soman, 424 F. Supp. 3d 552, 561 (E.D. Ark. 2019).

¹⁰² *Id.*

¹⁰³ *Id.* at 562.

¹⁰⁴ *Id.* at 573.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 574, 579.

Tofurky.”¹⁰⁷ These sections all dealt with representing a product as something it was not, specifically representing the product as a “meat” when it is not.¹⁰⁸

These case examples demonstrate that the law in this area is not settled and it will continue to be litigated with the continuing enactment of these types of statutes. These holdings will simply generate further confusion as more statutes are enacted and more litigation ensues around this topic. A uniform federal regulation is needed to dispel this confusion, and the FDA has provided some insight into what a regulation could look like from the proposed guidance on plant-based milk products.

IV. PROPOSED GUIDANCE ON PLANT-BASED MILK

The FDA published a notice in the Federal Register on September 28, 2018, requesting comments on the labeling of all plant-based alternatives.¹⁰⁹ The notice received over 13,000 comments centered around plant-based milk alternatives.¹¹⁰ The comments and outside research conducted by the FDA prompted the development of the current guidance based on a “concern related to the substitution of milk with plant-based milk alternatives that contain lower amounts of certain nutrients than found in milk.”¹¹¹

In the draft guidance, the FDA makes clear that “[p]lant-based milk alternatives are not milk” and therefore, “they may not be offered for sale as ‘milk.’”¹¹² However, the FDA determined that based on the comments received, “consumers, generally, do not mistake plant-based milk alternatives for milk.”¹¹³ In focus groups conducted by the FDA, “most participants were not confused about plant-based milk alternatives containing milk.”¹¹⁴ Furthermore, these focus groups stated that they prefer the use

¹⁰⁷ *Turtle Island Foods SPC v. Soman*, 632 F. Supp. 3d 909, 948 (E.D. Ark. 2022) (This was a continuation of the previous case, and after the motion for preliminary injunction was granted, Tofurky amended its complaint to ask for permanent declaratory and injunctive relief).

¹⁰⁸ See Truth in Labeling of Agriculture Products Edible by Humans, ARK. CODE ANN. § 2-1-305(2)-(9) (2019).

¹⁰⁹ Ctr. for Food Safety & Applied Nutrition, *supra* note 25, at 4.

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.* at 7.

¹¹³ *Id.* at 8.

¹¹⁴ *Id.* at 5.

of the term milk when describing plant-based milk products rather than other terms such as “beverage” or “drink.”¹¹⁵

Under the Dietary Guidelines for Americans, 2020-2025, the Dairy Group of food products includes “[a]ll fluid, dry, or evaporated milk, including lactose-free and lactose-reduced products and fortified soy beverages (soy milk), buttermilk, yogurt, kefir, frozen yogurt, dairy desserts, and cheeses.”¹¹⁶ According to the Dietary Guidelines, “the Dairy Group has been allowed to include soy beverages fortified with calcium, vitamin A, and vitamin D because they are similar to milk based on their nutrient composition and use in meals.”¹¹⁷ The Dairy Group (fluid, dry, or evaporated milk) has been found to be “a key contributor of calcium, protein, vitamin A, vitamin D, magnesium, phosphorus, potassium, riboflavin, vitamin B-12, as well as zinc, choline, and selenium.”¹¹⁸ The Dietary Guidelines, 2020-2025, “identif[y] calcium, vitamin D, and potassium as nutrients of public health concern across all age groups.”¹¹⁹ “[C]alcium and vitamin D are critically needed during the time period when peak bone mass is still actively accruing (adolescence through 30 years of age)”¹²⁰

There is no set standard for the nutritional content of plant-based milk alternatives, and the nutritional content can vary significantly “depending on the raw materials used, processing, fortification with vitamins and minerals, and the addition of other ingredients.”¹²¹ The lack of standard nutritional content led the FDA to conclude that:

consistently consuming plant-based milk alternatives that do not have similar nutritional composition to milk in place of milk, without the addition of other foods to supply the missing nutrients, could lead to further inadequate intake of nutrients of public health concern and other nutrients that pose a specific public health challenge.¹²²

Based on this information, the FDA “recommends that plant-based milk alternatives that use the term ‘milk’ in their name . . . and have a

¹¹⁵ *Id.*

¹¹⁶ U.S. Dep’t Agric. & Dep’t Health & Human Servs., *Dietary Guidelines for Americans, 2020–2025*, DIETARY GUIDELINES 1, 29 (Dec. 2020), https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf.

¹¹⁷ Ctr. for Food Safety & Applied Nutrition, *supra* note 25, at 9.

¹¹⁸ *Id.*

¹¹⁹ *See id.* *See also* U.S. Dep’t Agric. & Dep’t Health & Human Servs., *supra* note 116, at 36.

¹²⁰ *Id.* at 10.

¹²¹ *Id.*

¹²² *Id.* at 10, 11.

nutrient composition that is different than milk . . . bear an additional nutrient statement on the product label describing how it is nutritionally different.”¹²³ The nutritional information should be placed “on the principal display panel (PDP) near and visually connected to the name of the product if space allows.”¹²⁴ The same approach can be used for plant-based meat products.

A recent study by Colorado State University compared the nutritional composition of Beyond Meat Burger, Impossible Foods Burger, Morning Star’s Black Bean Burger, and 80/20 ground pork.¹²⁵ The study looked at crude fat, crude protein, vitamin analysis for both fat-soluble vitamins and water-soluble vitamins, and amino acid analysis, among other things.¹²⁶ In the amino acid analysis, histidine,¹²⁷ methionine,¹²⁸ and lysine¹²⁹ concentrations were greater in the ground pork as compared to plant-based alternatives.¹³⁰ Other than this distinction, the study found that overall the composition of plant-based alternatives and ground pork were similar, but the study concluded that more research would need to be done to determine the bioavailability of the nutrients in plant-based alternatives.¹³¹

In the same year as the Colorado State University study, Duke University compared the nutritional composition of plant-based “beef” products with “traditional” beef products and found large nutritional

¹²³ *Id.* at 15.

¹²⁴ *Id.* at 16.

¹²⁵ Swing, *supra* note 25, at 1.

¹²⁶ *Id.* at 2–3.

¹²⁷ Histidine is a “semi-essential amino acid” that is “essential in the diet of infants and individuals with uremia – a kidney disorder.” *Histidine*, AMINO ACIDS GUIDE, <https://aminoacidsguide.com/His.html> (May 29, 2023).

¹²⁸ Methionine is “one of the essential amino acids necessary for your health” and must be provided through the diet. *Methionine*, AMINO ACIDS GUIDE, <https://aminoacidsguide.com/Met.html> (May 29, 2023).

¹²⁹ Lysine “plays a major role in calcium absorption, as well as in helping [to build] muscle protein.” *Lysine*, AMINO ACIDS GUIDE, <https://aminoacidsguide.com/Lys.html> (May 29, 2023).

¹³⁰ Caleb J. Swing et al., *Nutritional Composition of Novel Plant-based Meat Alternatives and Traditional Animal-Based Meats*, 7 J. OF FOOD SCI. & NUTRITION 1, 6 (July 9, 2021), https://www.heraldoopenaccess.us/article_pdf/33/nutritional-composition-of-novel-plant-based-meat-alternatives-and-traditional-animal-based-meats.pdf.

¹³¹ *Id.*

differences.¹³² When comparing eighteen different packages of “plant-based meat alternatives” with eighteen different packages of “grass-fed, black angus cattle” the study found that the nutritional composition of “113 g (4oz) grass-fed beef was 24 g of protein, 0 g of carbohydrates, 14 g of fat (5 g saturated fat), and 220 kcal.”¹³³ However, the nutritional composition of a 113 g portion of the plant-based meat products came out at “19 g of protein, 9 g of carbohydrates, 14 g of fat (8 g saturated fat), and 250 kcal.”¹³⁴ Furthermore, there were multiple nutrients that were only found in grass-fed beef, including cysteamine (amine, anti-oxidant),¹³⁵ hydroxyproline (non-protein amino acid; collagen biosynthesis),¹³⁶ and niacinamide (vitamin B3; neuroprotective).¹³⁷ Furthermore, “[a]nimal proteins contain[ed] a better balance of essential amino acids than plant proteins,” and these amino acids “cannot be produced by humans.”¹³⁸ These essential amino acids are “important for proper growth and development of young children.”¹³⁹

The proposed guidance on plant-based milk products is a start to the regulation of plant-based products, but it still presents a lot of open questions. Specifically, the FDA makes it seem as though consumers are not confused by the term “milk,”¹⁴⁰ yet the FDA guideline states that consumers do not understand the nutritional differences between plant-based milk and “traditional” milk.¹⁴¹ Even though the draft guidance is not a perfect standard, it is a good example of what the FDA can do to regulate plant-based meat products. Specifically, from the studies presented above on plant-based meat products,¹⁴² it is evident that there are nutritional differences between plant-based meat products and “traditional” meat products that warrant disclaimers on the packages.

¹³² Stephan van Vilet et al., *A Metabolomics Comparison of Plant-Based Meat and Grass-fed Meat Indicates Large Nutritional Differences Despite Comparable Nutrition Facts Panels*, 11 SCI. REPS. 1, 3 (2021), <https://www.nature.com/articles/s41598-021-93100-3.epdf>.

¹³³ *Id.* at 2–3.

¹³⁴ *Id.* at 3.

¹³⁵ *Id.*

¹³⁶ *Id.* at 3.

¹³⁷ *Id.*

¹³⁸ C. Lynn Knipe et al., *Comparing Traditional Meat and Plant-Based Meat*, OHIOLINE (June 9, 2022), <https://ohioline.osu.edu/factsheet/anr-0103-0>.

¹³⁹ *Id.*

¹⁴⁰ See Hogan Lovells et al., *FDA Issues Draft Guidance on Labeling of Plant-based Milk Alternatives*, JD SUPRA (Feb. 24, 2023), <https://www.jdsupra.com/legalnews/fda-issues-draft-guidance-on-labeling-4065254/>.

¹⁴¹ Ctr. for Food Safety & Applied Nutrition, *supra* note 25, at 4.

¹⁴² See e.g. van Vliet et al., *supra* note 132; Swing, *supra* note 130.

V. PROPOSED RESOLUTION

In the wake of conflicting federal, state, and judicial precedents, and the nutritional differences between plant-based meat alternatives and “traditional” meat, the FDA should take control of the plant-based meat labeling problem and promulgate a regulation for plant-based meat alternatives similar to the proposed guidance on plant-based milk labeling. This type of regulation would promote a compromise between the conflicting opinions of plant-based meat companies and traditional meat companies and present information to consumers about key nutritional differences in the products. Allowing the term “meat” on the meat analogs would show that the plant-based meat companies are not misrepresenting their products by having this terminology. Whereas requiring a qualifier when the term “meat” is used would eliminate the argument that the products are misleading and confusing consumers.

The regulation of plant-based meat labeling would clearly be within the FDA’s mission to protect the “public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and ensuring the safety of our nation’s food supply, cosmetics, and products that emit radiation.”¹⁴³ As per the Administrative Procedures Act, the FDA, and all other agencies, can regulate through formal and informal rulemaking.¹⁴⁴ However, in recent years as rulemaking has become more cumbersome, the FDA has increasingly turned to guidance documents to inform the industry of proper protocols.¹⁴⁵

Agency guidance documents are only used to specify best practices rather than requirements which are laid out in regulations.¹⁴⁶ Guidance documents are a type of informal rulemaking the FDA can use to escape the “normal procedural safeguards” that are associated with formal rulemaking.¹⁴⁷ Under these restrictions, if the proposed guidance for plant-based milk takes effect, it will only have the authority to show best practices in the industry rather than require the plant-based milk companies to have a disclaimer on their products. This makes little to no progress on the issue

¹⁴³ *What We Do*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/about-fda/what-we-do> (Mar. 28, 2018).

¹⁴⁴ Administrative Procedure Act, 5 U.S.C. § 553 (1946).

¹⁴⁵ See Lars Noah, *Governance by the Backdoor: Administrative Law(lessness?) at the FDA*, 93 NEB. L. REV. 89, 97 (2014) (“[T]hese informal announcements may operate as de facto rules but escape normal procedural safeguards for their promulgation or review.”).

¹⁴⁶ Berman, *supra* note 26.

¹⁴⁷ Noah, *supra* note 145, at 97.

of plant-based food product labeling because there are no “legal” requirements for the disclaimers.

However, through its proposed guidance on milk, the FDA has shown that it can take a stance on plant-based product labeling.¹⁴⁸ An analogous regulation for plant-based meat could state that if the term “meat” or similar terminology such as burger is used on a product that is not meat, then the label must have a disclaimer showing the nutritional differences between that product and the “traditional” meat product it is meant to invoke. This disclaimer would focus on nutrients that have been shown to be lacking in plant-based meat alternatives such as protein and some essential amino acids.¹⁴⁹ These disclaimers are important because a lot of the nutrients lacking in plant-based meat alternatives are vital to the growth and development of children.¹⁵⁰ A regulation, rather than guidance, would have the force of law and ensure that the FDA could not escape procedural safeguards such as judicial review if this regulation is challenged.

While this regulation would solve the problem, it would not conclude the debate over plant-based meat products. Along with the regulation, it could be argued that an overhaul of other definitions and regulations regarding food products and meat would be required. Allowing the term “milk” on plant-based dairy products conflicts with the FDA’s and the USDA’s definition of milk,¹⁵¹ just like allowing the term “meat” on meat analogs would be incompatible with the definition of meat set out by the USDA.¹⁵² Furthermore, there may need to be new regulations or clarifying

¹⁴⁸ See Ctr. for Food Safety & Applied Nutrition, *supra* note 25.

¹⁴⁹ See e.g. van Vliet et al., *supra* note 132; Swing, *supra* note 130.

¹⁵⁰ Knipe et al., *supra* note 138; *Histidine*, *supra* note 127.

¹⁵¹ See 21 C.F.R. § 131.110(a) (2023) (“Milk is the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy cows.”); U.S. DEPT OF AGRIC., MILK FOR MANUFACTURING PURPOSES AND ITS PRODUCTION AND PROCESSING: RECOMMENDED REQUIREMENTS 3 (July 21, 2011), <https://www.ams.usda.gov/sites/default/files/media/Milk%20for%20Manufacturing%20Purposes%20and%20its%20Production%20and%20Processing.pdf#>.

¹⁵² See 9 C.F.R. § 301.2 (2023). Meat is defined as:

The part of the muscle of any cattle, sheep, swine, or goats which is skeletal or which is found in the tongue, diaphragm, heart, or esophagus, with or without the accompanying and overlying fat, and the portions of the bone (in bone-in product such as T-bone or porterhouse steak), skin, sinew, nerve, and blood vessels which normally accompany the muscle tissue and that are not separated from it in the process of dressing.

Id.

information regarding the term “misbranded” to ensure the litigation around misleading commercial speech is not in conflict with the term.

To avoid an overhaul of standards of identity and the definition of misbranded, the USDA and the FDA could enter into a memorandum of understanding similar to the ones they have set out regarding cell-based meat,¹⁵³ the Defense Production Act,¹⁵⁴ and the dual jurisdiction establishments and operations.¹⁵⁵ In this memorandum of understanding, it could be made clear the FDA would do the bulk of the regulating of plant-based meat products because they already regulate all other processed foods. Furthermore, there could be language regarding the use of the term “meat” and how the USDA understands that the use of the term “meat” does not conflict with the standard of identity of meat it previously promulgated. This type of regulation would not violate First Amendment rights because these types of qualifiers and standards are similar to the standards used for other foods to ensure products are not misleading or misbranded.

VI. CONCLUSION

The best position, given the controversy, for the FDA to take at this time is to promulgate a regulation similar to the proposed guidance for plant-based milk allowing the term “meat” to continue to be allowed on plant-based meat products. In order to allow the term meat, the regulation must require there to be qualifiers showing the nutritional differences between the meat analogs and the “traditional” meat product to allow consumers to make an informed choice about their products. Creating a new standard of identity for plant-based meat may make things more confusing. Also, promulgating new definitions of meat and milk would be time-consuming and would likely take years to go into effect. Therefore, the USDA

¹⁵³ See, e.g., *Formal Agreement Between FDA and USDA Regarding Oversight of Human Food Produced Using Animal Cell Technology Derived from Animal Cell Lines of USDA-Amenable Species*, U.S. FOOD & DRUG ADMIN. (Mar. 7, 2019), <https://www.fda.gov/food/domestic-interagency-agreements-food-expired/formal-agreement-between-fda-and-usda-regarding-oversight-human-food-produced-using-animal-cell>.

¹⁵⁴ See generally *Memorandum of Understanding Between FDA and USDA Regarding the Potential Use of the Defense Production Act with Regard to FDA-Regulated Food During the COVID-19 Pandemic*, U.S. DEP’T OF AGRIC. (May 18, 2020), <https://www.usda.gov/sites/default/files/documents/mou-between-fda-usda-dpa.pdf>.

¹⁵⁵ See generally *Memorandum of Understanding Between the Food Safety and Inspection Service United States Department of Agriculture and the Food and Drug Administration United States Department of Health and Human Services*, U.S. DEP’T OF AGRIC. (July 28, 2021), https://www.fsis.usda.gov/sites/default/files/media_file/2021-08/MOU-FDA-USDA-dual-jurisdiction-2021-06-24.pdf.

and the FDA will need to enter into a memorandum of understanding for plant-based meat products to determine what areas of regulation each agency will cover. With the memorandum in place, no definitions would need to be changed, and no new standard of identity would need to be promulgated.

Arguments will likely continue no matter what type of regulation the FDA promulgates because one side will be unhappy with the outcome. This proposal for the regulation attempts to compromise by allowing plant-based companies to use the term “meat,” while allowing the agriculture community a qualifier about nutritional differences. However, only time will tell if the FDA stands firm on its proposal to continue to allow the term “milk” on plant-based milk products as it reopened the notice and comment period on the proposed guidance discussed above. Changing the proposed guidance could have significant repercussions on other plant-based products and the meat and milk industries as a whole.