Vanderbilt Journal of Entertainment & Technology Law

Volume 23 Issue 1 *Issue 1 - Fall 2020*

Article 6

12-2020

The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?

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Eryn Terry, The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?, 23 Vand. J. Ent. & Tech. L. 223 (2020).

APA 7th ed.

Terry, E. (2020). The regulation of commercial speech: can alternative meat companies have their beef and speak it too?. Vanderbilt Journal of Entertainment & Technology Law, 23(1), 223-[x].

Chicago 17th ed.

Eryn Terry, "The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?," Vanderbilt Journal of Entertainment & Technology Law 23, no. 1 (Fall 2020): 223-[x]

McGill Guide 9th ed.

Eryn Terry, "The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?" (2020) 23:1 Vand J Ent & Tech L 223.

AGLC 4th ed.

Eryn Terry, 'The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?' (2020) 23(1) Vanderbilt Journal of Entertainment & Technology Law 223

MLA 9th ed.

Terry, Eryn. "The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?." Vanderbilt Journal of Entertainment & Technology Law, vol. 23, no. 1, Fall 2020, pp. 223-[x]. HeinOnline.

OSCOLA 4th ed.

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The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?

ABSTRACT

Would you eat a hamburger that was made in a petri dish? Consumers may have this option soon as laboratory-grown meat begins to hit supermarket shelves. Laboratory-grown meat is made from animal stem cells that eventually transform into primitive fibers and tissue within the confines of a petri dish. Although a lot remains unknown about laboratory-grown meat, consumers can think of it as meat production without the farm.

How might consumers react to meat labels indicating that their products were made in a petri dish? Laboratory-grown meat companies have yet to find out, as some states have passed laws that ban the use of the term "meat" to describe their products. Ironically, some of these statutes have also sought to prevent vegetarian meat companies from advertising with the term "meat," even though their products have been on the market for decades.

This Note argues that state statutes restricting use of the term "meat" violate the First Amendment. While the government has a legitimate interest in promoting consumer protection and market transparency, these statutes are more extensive than necessary to achieve the government's goal. The US federal government should enact legislation that balances consumer protection and the commercial speech of alternative meat producers. Due to its extensive history of regulating food labels and advertisements, the federal government is best positioned to enact a homogeneous regulatory system for alternative meat. Additionally, federal legislation, as opposed to varied state statutes, would make it easier for food companies to comply with one set of standards while distributing across state lines.

As the market for food alternatives diversifies, a regulatory system that protects consumers and upholds core First Amendment values becomes increasingly vital.

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Meat consumption is deeply ingrained in the North American diet, with traditional cuisines often centered around barbecue and burgers. Despite some Americans' cultural connection to meat, industrial agriculture and the large-scale production of meat products are frequently associated with devastating effects on the environment, animals, and marginalized communities. 2

Have alternative meat companies found a way for Americans to consume meat without the social and environmental costs? "Alternative meat" refers to meat-imitation products either grown within a

^{1.} See generally Dana Joseph, American Food: The 50 Greatest Dishes, CNN (Apr. 9, 2019), https://www.cnn.com/travel/article/american-food-dishes/index.html [https://perma.cc/R5ZY-VYFB].

^{2.} See Sarah Gibbens, Eating Meat Has 'Dire' Consequences for the Planet, Says Report, NAT'L GEOGRAPHIC (Jan. 16, 2019), https://www.nationalgeographic.com/environment/2019/01/commission-report-great-food-transformation-plant-diet-climate-change/ [https://perma.cc/9PBD-FNTA].

laboratory or made entirely from plants.³ For many, alternative meat provides an avenue for people to consume meat and imitation-meat products while eliminating many of the social and environmental ills associated with traditional meat consumption.

However, regulation of alternative meat has become a controversial subject.⁴ Though plant-based meat is not new to the marketplace, some of today's plant-based meat products are revolutionary in a vital way.⁵ Companies like Beyond Meat and Impossible Foods manufacture plant-based meats to intentionally resemble and taste like traditional meat products.⁶ In contrast to previous types of plant-based meats, these items might attract traditional meat lovers in addition to vegetarians and vegans.⁷ As companies like Burger King and McDonald's incorporate plant-based burgers into their menus, these products gain a reputation as "fast food" rather than "vegetarian" or "vegan" health products.⁸

Lab-grown meat products, on the other hand, have not yet entered the marketplace. Recently, the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) agreed to jointly regulate lab-grown meat products. While it is encouraging that the FDA and the USDA have taken a proactive stance on regulating alternative meat, controversy surrounding the advertising and labeling of alternative meat remains. State legislatures have passed statutes that prevent use of the term "meat" in the labeling of

^{3.} See Emily Laurence, We're Calling It: 2019 Will Be the Year of Even More "Alt-Meats," Well & Good (Feb. 1, 2019), https://www.wellandgood.com/good-food/alternative-meat-products/[https://perma.cc/93PD-FX2U].

^{4.} See generally Nathaniel Popper, You Call That Meat? Not So Fast, Cattle Ranchers Say, N.Y. TIMES (Feb. 9, 2019), https://www.nytimes.com/2019/02/09/technology/meat-veggie-burgers-lab-produced.html [https://perma.cc/UF5B-M96Z].

^{5.} See Kelsey Piper, The Rise of Meatless Meat, Explained, VOX (Feb. 20, 2020), https://www.vox.com/2019/5/28/18626859/meatless-meat-explained-vegan-impossible-burger [https://perma.cc/8WAM-7MDG].

See id.

^{7.} See id.

^{8.} See generally Dane Rivera, All the Major Fast Food Chains Serving Plant Based Meat in 2020, UPROXX (Sept. 3, 2020), https://uproxx.com/life/fast-food-chains-serving-plant-based-meat-2020/ [https://perma.cc/K43P-FYR6].

^{9.} See Piper, supra note 5.

^{10.} Press Release, U.S. DEP'T AGRIC., USDA and FDA Announce a Formal Agreement to Regulate Cell-Cultured Food Products from Cell Lines of Livestock and Poultry (Mar. 7, 2019), https://www.usda.gov/media/press-releases/2019/03/07/usda-and-fda-announce-formal-agreement-regulate-cell-cultured-food [https://perma.cc/TLM7-GX46].

^{11.} See Yitzchak Besser, False Advertising, Free Speech, and the Fight over Plant-Based and Lab-Grown Meat Alternatives, IPWATCHDOG (Dec. 5, 2018), https://www.ipwatchdog.com/2018/12/05/false-advertising-free-speech-plant-meat-alternatives/id=103935/[https://perma.cc/H73X-NR4W].

both lab-grown and plant-based meat products. ¹² Generally, lawmakers have justified these statutes as protecting consumer choice and public health by preventing a confusing and misleading labeling scheme. ¹³

Alternative meat companies and their advocates argue that these statutes are unconstitutional because they prevent the sharing of "truthful information and impede competition" in the marketplace.14 Advocates of lab-grown meat maintain the position that lab-grown meat technically is meat because it is cultivated from the cells of live animals;15 therefore, use of the term "meat" in describing the product is neither false nor misleading. Furthermore, proponents for plant-based meat argue that use of the term "meat" is unlikely to mislead the average consumer when used with qualifying words, such as "veggie" or "plant-based."16 Ultimately, alternative meat companies challenging these statutes because they violate the companies' First Amendment rights to free commercial speech.¹⁷ While this Note primarily examines the meat industry, this First Amendment issue is particularly salient, as it is relevant to other industry actors, such as plant-based milk companies and manufacturers of cauliflower "rice." 18

Part I of this Note compares the production processes of traditional meat with that of alternative meat products. It further discusses the current debate surrounding the use of the term "meat" to market these items. It then identifies current and future regulations of these products at the state and federal levels. Part II analyzes the current constitutional challenges to these statutes and whether or not they have merit. Part III poses an effective solution to regulating the labeling of alternative meat products. This Note will ultimately explain why restriction of the term "meat" in alternative meat product

^{12.} See id.

^{13.} See id.

^{14.} Id

^{15.} See Jane Wakefield, TED 2019: The \$50 Lab Burger Transforming Food, BBC (Apr. 16, 2019), https://www.bbc.com/news/technology-47724267 [https://perma.cc/355F-6DJR] (explaining that lab-grown meat is not a "veggie burger" trying to be marketed solely to the vegetarian consumer base).

^{16.} Besser, supra note 11 ("However, in their complaint to the court, the ACLU noted that '[t]here was no evidence of consumer confusion about the ingredients or source of plant-based meats, including Tofurky's products, before the statute went into effect' and that '[t]he Office of the Missouri Attorney General—the agency responsible for protecting consumers and preventing misleading business practices—has received zero complaints from consumers who accidentally purchased plant-based meats that they believed to be meat from slaughtered animals.").

^{17.} See id

^{18.} See Laura Follansbee, States Are Protecting Animal-Based Agriculture at the Expense of the First Amendment, HARV. C.R.-C.L. L. REV. (Nov. 5, 2019), https://harvardcrcl.org/states-are-protecting-animal-based-agriculture-at-the-expense-of-the-first-amendment/ [https://perma.cc/7FTM-QQAX].

advertisements is an unconstitutional violation of commercial speech and why use of the term "meat" for alternative meat products should be federally recognized as legal.

I. BACKGROUND

A. An Overview of the Traditional Meat Industry

The term "meat industry" refers to the raising, slaughtering, processing, and packaging of meat into products and by-products. ¹⁹ Meat products are then sold to manufacturers, grocery and meat wholesalers, and retail traders. ²⁰ The meat and poultry industry is the largest economic segment of US agriculture. ²¹ In 2017, the meat and poultry industry processed 9 billion chickens, 32.3 million cattle and calves, 241.7 million turkeys, 2.2 million sheep and lambs, and 121 million hogs. ²² Major state players in meat production include Iowa (hog), Georgia (chicken), Minnesota (turkey), and Nebraska (cattle). ²³ Additionally, the meat and poultry industry is responsible for providing millions of jobs. ²⁴

US meat consumption and preferences are incredibly hard to measure.²⁵ According to the USDA, annual per capita consumption of red meat has decreased by 15 percent in the past ten years.²⁶ Simultaneously, pork consumption has remained relatively constant

^{19.} Meat, Beef & Poultry Processing Industry in the US - Market Research Report, IBISWORLD (Feb. 29, 2020), https://www.ibisworld.com/united-states/market-research-reports/meat-beef-poultry-processing-industry/ [https://perma.cc/396F-NXAF].

^{20.} See id.

^{21.} See The United States Meat Industry at a Glance, N. AM. MEAT INST., https://www.meatinstitute.org/index.php?ht=d/sp/i/47465/pid/47465 [https://perma.cc/U6MY-9D8R] (last visited Sept. 23, 2020) (explaining that the meat and poultry industry is the largest economic segment of US agriculture, totaling over one hundred billion pounds of products in 2017).

^{22.} See id.

^{23.} See id.

^{24.} See id. The meat and poultry industries are responsible for roughly 5.4 million US jobs and \$257 billion in wages, and they also provide meat on a global scale. See id.

^{25.} Different statistics, influenced by underlying political messages, convey different pictures as to how much and what kind of meat North Americans consume. Hypothetically, as the population increases, total meat consumption might rise or remain constant while per capita consumption decreases. Or per capita consumption of one type of meat might significantly decline while consumption of a cheaper or "healthier" meat increases. See Arbindra P. Rimal, Factors Affecting Meat Preferences among american Consumers 1–5 (2002), https://faunalytics.org/wp-content/uploads/2015/05/Citation405.pdf. These factors—as well as other variables such as price, consumer preferences, and reporting bias—make it difficult to determine what US meat consumption really looks like today. See id.

^{26.} See Meat in Decline, WORLD PRES. FOUND., https://worldpreservationfoundation.org/business/meat-in-decline/ [https://perma.cc/2KWZ-E2WX] (last visited Sept. 23, 2020).

over time, while chicken consumption has more than doubled since the 1970s.²⁷

A contested topic is why—given North Americans' love of meat and the economic benefits of the meat industry—has red meat, specifically beef, consumption declined. Research indicates that an increase in health concerns relating to beef and the cheaper retail price of chicken have encouraged the consumption of more chicken and less beef products.²⁸ The main argument against meat production stems from its caloric inefficiency.²⁹ A study found that while dairy and meat provide just 18 percent of calories and 37 percent of protein consumed by the global human population, their production requires 83 percent of farmland and produces 60 percent of agriculture's contribution to greenhouse gases.³⁰

Perhaps another significant but more controversial reason North Americans are consuming less beef is that humans are becoming more aware of the environmental and social consequences associated with beef consumption and feel pressure to consume less of it.³¹ Some scientific studies suggest the most impactful way for an individual to reduce her environmental impact is to avoid consuming meat and dairy.³² While there may be other ways to significantly reduce one's carbon footprint, such as having fewer children, flying less, and investing in solar energy in one's home, reducing one's daily meat intake is arguably a more economically and socially feasible option.³³ In addition to the meat industry's contribution to greenhouse gases, a recent study found that meat consumption causes the majority of water and air pollution.³⁴ While the data indicates the issue is global, the United States remains the world's largest beef producer and

^{27.} See Richard Waite, 2018 Will See High Meat Consumption in the U.S., but the American Diet Is Shifting, WORLD RES. INST. (Jan. 24, 2018), https://www.wri.org/blog/2018/01/2018-will-see-high-meat-consumption-us-american-diet-shifting [https://perma.cc/625L-ZAVX].

^{28.} See id.

^{29.} See Damian Carrington, Avoiding Meat and Dairy Is 'Single Biggest Way' To Reduce Your Impact on Earth, GUARDIAN, https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth [https://perma.cc/S2LZ-6HGJ] (last modified Oct. 2, 2019, 12:26 PM).

^{30.} See id. The study analyzed data from forty thousand farms in 119 countries. See id.

^{31.} See Waite, supra note 27.

^{32.} See Carrington, supra note 29.

^{33.} See Diego Arguedas Ortiz, Ten Simple Ways to Act on Climate Change, BBC (Nov. 4, 2018), https://www.bbc.com/future/article/20181102-what-can-i-do-about-climate-change [https://perma.cc/6BUE-L8MD].

^{34.} See Carrington, supra note 29. In addition to the global meat industry's contribution to greenhouse gases, the study found that it causes 57 percent of water pollution, as well as 56 percent of air pollution.

consumer. 35 Even though consumption has decreased, US beef consumption still accounts for nearly half of citizens' dietary environmental footprint. 36

B. An Overview of the Alternative Meat Industry

1 Plant-Based Meat Products

As previously mentioned, the alternative meat industry encompasses both plant-based and lab-grown meat products.³⁷ "Plant-based" meat refers to any vegetarian or vegan food product made entirely from plants and marketed as a substitute for traditional meat products, such as chicken, burgers, and meatballs.³⁸

There are many types of plant-based meat products.³⁹ While these products incorporate various ingredients, the base usually contains plant protein (or whey protein) and spices.⁴⁰ People consume these products for many reasons; among the most popular are health concerns associated with traditional meat, environmental sustainability, and curiosity.⁴¹ While one might assume that these products are healthier because they are made from plants, these items tend to have a higher salt content due to their processed nature.⁴² Yet, they usually contain more fiber and less cholesterol than traditional meat.⁴³

In addition to the potential health benefits of plant-based meat products, these items also typically require less environmental resources during manufacturing. The production of one pound of

^{35.} Rob Cook, World Beef Consumption: Ranking of Countries, BEEF2LIVE (Sept. 22, 2020), https://beef2live.com/story-world-beef-consumption-ranking-countries-130-106879 [https://perma.cc/J7HA-SVT8]; Hannah Ritchie & Max Roser, Meat and Dairy Production, OUR WORLD DATA, https://ourworldindata.org/meat-production [https://perma.cc/2EH3-QG85] (last modified Nov. 2019).

^{36.} See Waite, supra note 27.

^{37.} See Laurence, supra note 3.

^{38.} See Stephanie Osmanski, What Is Plant-Based Meat?, GREEN MATTERS, https://www.greenmatters.com/p/plant-based-meats [https://perma.cc/4FHA-XF5Z] (last visited Sept. 23, 2020).

^{39.} See generally Caroline Roberts, 9 Plant-Based Meats You Can Buy at the Grocery Store, CNET (Dec. 12, 2019, 9:00 AM), https://www.cnet.com/news/these-are-the-plant-based-meats-you-can-buy-at-the-grocery-store/ [https://perma.cc/JF86-AN4P].

^{40.} See id.

^{41.} See Erica Sanchez, Gaëlle Langué & Joe McCarthy, 9 Reasons Why Plant-Based Meat Is the Food of the Future, GLOB. CITIZEN (May 1, 2019), https://www.globalcitizen.org/en/content/plant-based-meats-trends-list/[https://perma.cc/4FB3-BS5Y].

^{42.} See Roberts, supra note 39.

^{43.} See id.

traditional beef requires 1,799 gallons of water.⁴⁴ This includes irrigation of the grains used to feed the cows as well as the cows' drinking water and the water needed for processing.⁴⁵ In contrast, one pound of soybeans—a major product in plant-based meats—requires 216 gallons of water.⁴⁶

Although the plant-based meat industry has grown exponentially in recent years, plant-based meat sales only account for less than 1 percent of overall meat sales in the United States.⁴⁷ This could potentially change as plant-based meat companies continue to make their products more favorable to vegetarian and non-vegetarian consumers. Plant-based meat products have evolved tremendously due to technological innovation.⁴⁸ Today, plant-based meat companies employ technology to make their products taste, look, and feel similar to real meat.⁴⁹ For example, Impossible Foods engineered its plant-based burger to "bleed" by adding a molecule called hemoglobin.⁵⁰ Beyond Burger has utilized a different method to reach the same outcome: beets.⁵¹

Technological investment in product development highlights the economic potential that is the "Plant-Based Revolution"—the rise of the "plant-based" diet as consumers associate plant consumption with better overall health and environmental sustainability.⁵² As consumers become increasingly interested in the health and ethical "benefits" of a plant-based lifestyle, industry and start-up companies are beginning to create products to supply this demand.⁵³

^{44.} See Betty Hallock, To Make a Burger, First You Need 660 Gallons of Water..., L.A. TIMES (Jan. 27, 2014, 2:35 PM), https://www.latimes.com/food/dailydish/la-dd-gallons-of-water-to-make-a-burger-20140124-story.html#:~:text=A%201%2F3%2Dpound%20burger,requires%2011%20gallons%20of%20water [https://perma.cc/URQ8-2AE9].

^{45.} See id.

^{46.} See id.

^{47.} See Sanchez et al., supra note 41. "Overall meat sales" encompasses traditional meat sales (packaged and random-weight meat), as well as alternative meat sales. Plant-Based Market Overview, GOOD FOOD INST., https://www.gfi.org/marketresearch [https://perma.cc/L2JJ-DXA4] (last visited Sept. 16, 2020).

^{48.} See Sanchez et al., supra note 41.

^{49.} See id.

^{50.} See id.

^{51.} See id.

^{52.} See Benjamin Ferrer, "Storytelling: Winning with Words" Leads Innova Market Insights' Top Trends for 2020, FOOD INGREDIENTS FIRST (Oct. 23, 2019), https://www.foodingredientsfirst.com/news/storytelling-winning-with-words-leads-innova-market-insights-top-trends-for-2020.html [https://perma.cc/327J-Y5CT].

^{53.} See id.

2. Lab-Grown Meat

Lab-grown meat, also known as "cultured meat," "in vitro meat," "synthetic meat," or "clean meat," can be thought of as meat production without the farm. ⁵⁴ Lab-grown meat is made from the multiplication of stem cell tissue from animals, allowing the cells to transform into primitive fibers and eventually form muscle tissue. ⁵⁵ Mosa Meat, a leading lab-grown meat company, estimates that a tissue sample from a cow can yield approximately eighty thousand quarter-pound burgers. ⁵⁶ As a result, cultivating lab-grown meat could eliminate many of the issues surrounding greenhouse gas emissions, overexploitation of land, ground water contamination, and animal slaughtering. ⁵⁷

Critics of lab-grown meat, however, suggest the production of lab-grown meat might actually cause more damage to the environment than the current farming system does.⁵⁸ Researchers from the Oxford Martin School argue that even though beef production emits a significant amount of the greenhouse gas methane into only remains in $_{
m the}$ atmosphere environment, methane approximately twelve years. 59 In contrast, lab-grown meat laboratories emit carbon dioxide, a compound which remains in the air and accumulates for millennia.60 These researchers speculate that the carbon dioxide emitted by lab-grown meat production laboratories would actually exacerbate global warming rather than reduce it.61 Furthermore, with lab-grown meat's perceived positive effect on the

^{54.} Sarah Zhang, The Farcical Battle over What to Call Lab-Grown Meat, ATLANTIC (July 13, 2018), https://www.theatlantic.com/science/archive/2018/07/lab-grown-meat/565049/ [https://perma.cc/Z5MU-GC4W]; H.B. 1519, 66th Leg., 2019 Reg. Sess. (Wash. 2019); see Isha Datar, The Future of Food Is Farming Cells, Not Cattle, QUARTZ (Oct. 3, 2018), https://qz.com/1383641/the-future-of-food-is-farming-cells-not-cattle/ [https://perma.cc/8YRE-3V5W].

^{55.} See G. Owen Schaefer, Lab-Grown Meat, SCI. AM. (Sept. 14, 2018), https://www.scientificamerican.com/article/lab-grown-meat/ [https://perma.cc/VV7Y-AGQU].

^{56.} See id.

^{57.} See What Is Lab Grown Meat and Is It Healthy?, TIMES INDIA (Nov. 21, 2019), https://timesofindia.indiatimes.com/life-style/food-news/what-is-lab-grown-meat-and-is-it-healthy/photostory/72155353.cms [https://perma.cc/7DZY-G6EX].

^{58.} See Matt McGrath, Cultured Lab Meat May Make Climate Change Worse, BBC (Feb. 19, 2019), https://www.bbc.com/news/science-environment-47283162 [https://perma.cc/L8LA-HT9P].

^{59.} See id.

^{60.} See id.

^{61.} See John Lynch & Raymond Pierrehumbert, Climate Impacts of Cultured Meat and Beef Cattle, FRONTIERS (Feb. 19, 2019), https://www.frontiersin.org/articles/10.3389/fsufs.2019.00005/full [https://perma.cc/QFR6-EAX9]. However, there is limited research either confirming or rejecting this study's findings.

environment, the study argues that people might actually increase their meat consumption, further exacerbating carbon dioxide emissions.⁶²

While methane does remain in the air for a shorter duration than carbon dioxide, a debate exists about whether methane is truly the lesser of two evils. 63 Methane is eighty-four times more potent than carbon dioxide. 64 Thus, "while methane doesn't linger as long... as carbon dioxide, it is initially far more devastating to the climate because of how effectively it absorbs heat."65 In response to critics, lab-grown meat proponents could argue that lab-grown meat laboratories will displace the cultivation of cattle completely and end the release of methane into the environment. Furthermore, lab-grown meat could have significant environmental benefits with respect to land and water pollution. 66 Given these environmental trade-offs, the manufacturing of lab-grown meat may have a net-positive effect on the environment, even if it results in increased production of carbon dioxide.

Additionally, advocates assert that lab-grown meat will also eliminate some health concerns associated with traditional meat.⁶⁷ Because lab-grown meat is produced in sterile conditions, it theoretically would be free of dangerous pathogens that exist in conventional meat.⁶⁸ Lab-grown meat would also lack antibiotics used in food-producing animals that have been linked to antibiotic-resistant bacteria, which are dangerous to humans.⁶⁹

C. Federal Regulation of Alternative Meat

1. Plant-Based Meat

Plant-based meat products have long existed in the market.⁷⁰ Furthermore, the federal government has a long history of regulating

^{62.} See McGrath, supra note 58.

^{63.} See Methane: The Other Important Greenhouse Gas, ENV'T DEF. FUND, https://www.edf.org/climate/methane-other-important-greenhouse-gas [https://perma.cc/J8M2-BFJC] (last visited Sept. 23, 2020).

^{64.} *Id*.

^{65.} Id.

^{66.} See Lynch & Pierrehumbert, supra note 61.

^{67.} See Marta Zaraska, Lab-Grown Meat Is in Your Future, and It May Be Healthier Than the Real Stuff, WASH. POST (May 2, 2016), https://www.washingtonpost.com/national/health-science/lab-grown-meat-is-in-your-future-and-it-may-be-healthier-than-the-real-stuff/2016/05/02/aa 893f34-e630-11e5-a6f3-21ccdbc5f74e_story.html [https://perma.cc/DDV9-MJHA].

^{68.} See id.

^{69.} See id.

^{70.} See Madelyn Fernstrom, Impossible and Beyond: Are Meatless Burgers Really Healthier?, NBC NEWS (Oct. 17, 2019, 1:07 PM), https://www.nbcnews.com/know-your-

this area.⁷¹ The Nutrition Labeling and Education Act of 1990 (NLEA) gives the FDA the authority to require nutrition labeling of most foods regulated by the agency under the Federal Food, Drug, and Cosmetic Act and its amendments.⁷² Food labeling is required for most processed foods, like plant-based meats.⁷³

Pursuant to its statutory authority, the FDA has issued regulations regarding the "identity labeling of food in packaged form." Under Section 101.3(a), the "principle display panel of a food package" shall include a statement of identity of the product. The statement can be the name required by federal law (if applicable), the "common or usual name of the food," or an "appropriately descriptive term." A food that is a substitute for another and resembles that food will not be an illegal imitation so long as it contains a name or description that is not false or misleading. For example, seafood sticks comprised of starch and finely pulverized whitefish have been legally marketed as a cheaper alternative to crabmeat, labeled "imitation crab," for decades.

2. Federal Regulation of Lab-Grown Meat

Unlike plant-based meat, lab-grown meat has yet to enter the market.⁷⁹ However, the federal government has responded to the invention of lab-grown meat and has taken a stance on future regulation once it is available to consumers.⁸⁰ In 2019, the FDA and the USDA issued an agreement that specified the regulatory roles and duties of each agency with respect to lab-grown meat.⁸¹ Under the agreement, the FDA will oversee much of the "premarket" process, such

value/feature/impossible-beyond-are-meatless-burgers-really-healthier-ncna1068181 [https://perma.cc/2KYZ-KCN3].

^{71.} See generally Food Labeling – An Overview, NAT'L AGRIC. L. CTR., https://nationalag-lawcenter.org/overview/food-labeling/ [https://perma.cc/S25M-NH52] (last visited Sept. 23, 2020).

^{72.} See U.S. FOOD & DRUG ADMIN., GUIDE TO NUTRITION LABELING AND EDUCATION ACT (NLEA) REQUIREMENTS (Aug. 1994).

^{73.} See Food Labeling & Nutrition, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/food/food-labeling-nutrition [https://perma.cc/LUW2-NVXA] (last updated Sept. 18, 2020).

^{74. 21} C.F.R. § 101.3 (2008).

^{75.} Id. § 101.3(a).

^{76.} Id. § 101.3(b).

^{77.} See id. § 101.3(e)(2).

^{78.} See Kimberly Holland, The Real Story Behind Imitation Crab, S. Living (June 30, 2020), https://www.southernliving.com/seafood/what-is-imitation-crab-meat [https://perma.cc/YYT9-J3PD].

^{79.} See Piper, supra note 5.

^{80.} U.S. DEP'T AGRIC, supra note 10.

^{81.} See id.

as preliminary consultations to evaluate the production materials, tissue collection, cells lines, and banks.⁸² The agency will also develop additional requirements for cell banks and cell culturing facility conditions, as needed.⁸³ Furthermore, the FDA will ensure that the USDA has the information necessary to successfully conduct its inquiry of whether or not the lab-grown animal cells are "eligible" for process into meat or poultry products.

In contrast, the USDA will have several responsibilities. First, it will help coordinate the transfer of regulatory oversight from the FDA and require preapproval and verification of labeling schemes of lab-grown meat products for human consumption prior to sale. The USDA will also "develop additional requirements to ensure the safety and accurate labeling of human food products derived from the cultured cells of livestock and poultry subject to the [Federal Meat Inspection Act of 1906] and the [Poultry Products Inspection Act]." Furthermore, the USDA will conduct enforcement action to prevent "adulterated or misbranded" lab-grown meat products from entering the market. Importantly, the agencies will work together to develop qualifications and rules for product labels in order to promote consistency and transparency.

Lastly, the agreement states that there are no "binding, enforceable obligations against either Agency." The agreement also provides the caveat that the agencies must only act to the extent that they have the available resources to do so. Bespite the agencies intentions to regulate in this area, this nonbinding agreement puts considerably less pressure on them to actually promulgate rules and regulations. Furthermore, the agencies can rely on a lack of economic resources to explain why they are not acting.

^{82.} See id.

^{83.} See U.S. DEP'T AGRIC, FORMAL AGREEMENT BETWEEN THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION AND U.S. DEPARTMENT OF AGRICULTURE OFFICE OF FOOD SAFETY 2 (Mar. 7, 2019), https://www.fsis.usda.gov/wps/wcm/connect/0d2d644a-9a65-43c6-944f-ea598aacdec1/Formal-Agreement-FSIS-FDA.pdf?MOD=AJPERES [https://perma.cc/QAL2-4EWF].

^{84.} *Id.* at 3.

^{85.} *Id*.

^{86.} See id. at 4.

^{87.} Id.

^{88.} See id.

D. State Regulation of Alternative Meat

As mentioned in Part I, food labeling is generally regulated by the USDA and the FDA.⁸⁹ Before 2019, there was little state regulation of alternative meat products, and there were no statutes limiting the use of the word "meat" in the labeling of said products.⁹⁰ However, the technological advances of plant-based meat and the invention of lab-grown meat have prompted states to act.⁹¹

While alternative meat companies undoubtedly refer to their products as "meat," states with significant interests in the traditional meat industry have barred alternative meat companies from labeling and marketing their products as such. 92 Missouri became the first state to limit use of the term "meat" during the marketing of alternative meat Missouri Meat Advertising Law products.93 The statute) defines meat as "any edible portion of livestock or poultry carcass or part thereof" and requires that any labeled meat product be derived "in whole or in part, from livestock or poultry."94 Those who violate the statute could face a year of jail time or a fine of \$1,000.95 Notably, alternative meat products can use the term "meat," so long as their labels are accompanied with the appropriate qualifiers, such as "plant-based." "veggie," "lab-grown," "lab-created," or comparable term; furthermore, these qualifiers must be prominently

^{89.} See supra Section I.C.

^{90.} See Kate Gibson, Missouri First U.S. State to Ban Word "Meat" on Anything but Animal Flesh, CBS NEWS (Aug. 28, 2018, 5:03 PM), https://www.cbsnews.com/news/missouri-first-state-to-ban-word-meat-on-anything-but-animal-flesh/ [https://perma.cc/L3MZ-S7WY]; The Complex Labeling Landscape for Plant-Based Meat Alternatives, JONES DAY 1 (Jan. 2020), https://www.jonesday.com/-/media/files/publications/2020/01/the-complex-labeling-landscape-for-plantbased-meat/files/1901568—the_complex_labeling_landscape/fileattachment/1901568—the_complex_labeling_landscape.pdf [https://perma.cc/2ZLX-DKDW].

^{91.} See Gibson, supra note 90.

^{92.} See Dan Flynn, 3 States Join Contested Missouri Ban on Using "Meat" on Cell-Cultured Product Labels, FOOD SAFETY NEWS (Apr. 3, 2019), https://www.foodsafetynews.com/2019/04/3-states-join-contested-missouri-ban-on-using-meat-on-cell-cultured-product-labels/ [https://perma.cc/3459-77JL] (explaining that a Montana statute that bans use of the term "meat" in lab-grown meat advertisements is under consideration). Furthermore, Montana's livestock herds make up about one-third of its agricultural gross national product. Id.

^{93.} See Rachel Harris, For State Meat Labeling Laws, Everybody Wants the Bacon, JDSUPRA (Sept. 13, 2019), https://www.jdsupra.com/legalnews/for-state-meat-labeling-laws-everybody-92723/ [https://perma.cc/2G8G-S2WU].

^{94.} Mo. Rev. Stat. §§ 265.300(7), 265.494(7) (2018).

^{95.} See id. §§ 265.494(7), 265.496; Criminal System: Classification of Offenses, Mo. SENT'G ADVISORY COMM'N, https://www.courts.mo.gov/hosted/JUDEDintra/MOSAC/Criminal System.html [https://perma.cc/472Q-RFLA] (last visited Sept. 24, 2020).

displayed on the product packaging.⁹⁶ Proponents of the legislation argue that this statute is not intended to stifle competition between traditional meat and alternative meat companies, but instead maintain the "integrity of [Missouri's] meat supply and reduce consumer confusion."⁹⁷

While the Missouri statute does restrict use of the term "meat" in some respects, this law is unlikely to cause significant harm to plant-based meat companies. Plant-based meat companies pride themselves on being "meat free," 98 so these companies are more likely to use appropriate qualifiers to educate consumers. Yet, this statute might have harsher effects on lab-grown meat products if companies want to conceal the fact that their products are grown in a laboratory. On the one hand, this information could be used as a marketing tool if lab-grown meat is associated with environmental sustainability, better health, and animal rights. On the other hand, since the concept of lab-grown meat is still new and taboo, it could discourage customers from purchasing the products. Therefore, the effects of the Missouri law will depend on the desired marketing tactics of the lab-grown meat companies.

Unlike Missouri, Washington State has taken a more aggressive approach to regulating alternative meat products. The Washington legislature has introduced a bill that bans the advertisement, selling, or offer for sale of cell-culture meat altogether. 99 The law would also prevent the use of state funding for research and development of the product and would criminalize the sale of lab-grown meat within state boundaries. 100 Washington's stated rationale for its stringent legislation is the "insufficient information about cell-cultured meat to

^{96.} See Mo. DEP'T OF AGRIC., MEMORANDUM TO THE MEAT INSPECTION PROGRAM ON MISSOURI'S MEAT ADVERTISING LAW 2 (Aug. 30, 2018), https://agriculture.mo.gov/animals/pdf/missouri-meat-advertising-guidance.pdf [https://perma.cc/7DY9-GRH5]; Missouri Meat Advertising Law, Mo. DEP'T AGRIC. (Aug. 30, 2018), https://agriculture.mo.gov/animals/meat.php [https://perma.cc/KBS3-9462].

^{97.} Besser, supra note 11.

^{98.} Elaine Watson, Beyond Meat to Go on the Offensive in Wake of Attacks on 'Ultra-Processed' Plant-Based Meat: 'We're Proud of Our Ingredients and Process,' FOOD NAVIGATOR USA (Feb. 28, 2020), https://www.foodnavigator-usa.com/Article/2020/02/28/Beyond-Meat-to-go-on-the-offensive-in-wake-of-attacks-on-ultra-processed-plant-based-meat-We-re-proud-of-our-ingredients-and-process [https://perma.cc/47EP-J6ET].

^{99.} H.B. 1519, 66th Leg., 2019 Reg. Sess. (Wash. 2019).

^{100.} See id.

authorize its sale safely into the Washington food system."¹⁰¹ This bill is currently under review in the Washington House Committee.¹⁰²

Recently, Mississippi enacted one of the most comprehensive and restrictive statutes regulating lab-grown meat labels. Months after its passage, however, the Mississippi legislature hastily amended the statute, allowing alternative meat companies to use "meat" in their advertisements. He fore it was amended, the statute asserted that "unwholesome, adulterated, or misbranded" meat and food products are dangerous to public health. He Mississippi legislature expressed concerns relating to public health, deceptive advertisements, and consumer choice. He sesentially, the statute made it a misdemeanor for both plant-based and lab-grown meat providers to label their products using the term "meat." The statute stated that "any food product containing cell-cultured animal tissue or plant-based or insect-based food shall not be labeled 'meat' or as a 'meat product." 108

Under the pre-amended regulation, the Commissioner of Agriculture and Commerce of the State of Mississippi (Commissioner) had significant discretion in deciding whether or not a marking or labeling scheme was "false or misleading." The Commission can "direct that such use be withheld unless the marking, labeling, or container is modified in such a manner as he may prescribe so that it will not be false or misleading." If the party using or proposing the labeling scheme disagreed with the Commissioner, the

^{101.} See id.

^{102.} Bill Status at a Glance: HB 1519, WA. STATE LEGISLATURE, https://app.leg.wa.gov/billsummary?BillNumber=1519&Year=2019&Initiative=false [https://perma.cc/24D2-2C5L] (last updated Oct. 4, 2020, 12:48 PM).

^{103.} Kelsey Piper, Mississippi Will No Longer Ban Calling Veggie Burgers "Veggie Burgers," VOX (Sept. 6, 2019, 4:10 PM), https://www.vox.com/future-perfect/2019/9/6/20853246/mississippi-veggie-burger-ban-laws-plant-based [https://perma.cc/XS7N-3PCM] (explaining that the Mississippi government amended the statute so that alternative meat companies can use the term "meat" so long as they use appropriate qualifiers, such as "veggie").

^{104.} See id. While the Mississippi legislature did not state a specific reason for its appeal, it is possible that it recognized the potential for judicial challenges regarding unconstitutional violations of commercial speech. See id.

^{105.} Mississippi Meat Inspection Law of 1968, MISS. CODE ANN. tit. 75, § 75-35-5 (2020).

See id.

^{107.} See id. § 75-35-311 ("Any person, firm, or corporation who violates any provision of this chapter for which no other criminal penalty is provided by this chapter shall upon conviction be subject to imprisonment for not more than one (1) year"); Mississippi Criminal Law: An Overview, LAWINFO, https://www.lawinfo.com/resources/criminal-defense/mississippi/[https://perma.cc/3KYS-DYKT] (last visited Sept. 25, 2020) (stating that under Mississippi law a misdemeanor is classified as an offense with an imprisonment sentence of less than a year).

^{108.} tit. 75, § 75-35-15(4).

^{109.} See id. § 75-35-15(5).

^{110.} Id.

party could request a hearing; however, use of the labeling scheme would be withheld pending the hearing, and the Commissioner would make the ultimate decision in the hearing. The party could then appeal the Commissioner's final determination in the relevant state's chancery court. On appeal, the chancery court would reconsider the Commissioner's determination.

If this statute had not been amended, these restrictions would have placed significant burdens on alternative meat companies. Existing plant-based meat companies that use the term "meat" in their labeling would have had to roll back their current infrastructures and create new marketing and branding systems. This would have caused significant restructuring and reputational costs.

Additionally, although lab-grown meat products are not yet on the market, the original Mississippi statute could have affected those that have already developed branding, logos, and advertisement schemes. It would have impeded these companies' ability to market their products in a way they deemed accurate and appealing to consumers. Furthermore, given the costly and lengthy administrative hurdles, a company may have been less likely to challenge the Commissioner's determination, even if the company felt its labels were not misleading.

As mentioned, the Mississippi legislature amended the statute, removing the ban on use of the term "meat" by alternative meat companies. 114 While the Mississippi legislature did not state a specific reason for its appeal, it is possible that it foresaw the potential judicial challenges regarding unconstitutional violations of commercial speech.

In Arkansas, legislators implemented an even broader scheme than that of Mississippi called the Truth in Labeling Bill, which provides jurisdiction over meat products, as well as cauliflower products. Recently, a federal judge issued a preliminary injunction,

^{111.} *Id*.

^{112.} *Id*.

^{113.} Id.

^{114.} See Tommy Tobin, Industry Insight: Mississippi Reverses Course on Plant-Based Meat Alternative Labeling, PERKINS COIE: FOOD LITIG. NEWS (Sept. 10, 2019), https://www.foodlitigationnews.com/2019/09/industry-insight-mississippi-reverses-course-on-plant-based-meat-alternative-labeling/ [https://perma.cc/C57K-4TEH].

^{115.} ARK. CODE ANN. tit. 2, § 2-1-302 (2020); see Arkansas Governor Signs a Truth in Labeling' Bill, AP NEWS (Mar. 20, 2019), https://apnews.com/4a19ab503dc44e0 d981c194ad96d32ba [https://perma.cc/S4M6-J9HG] ("The measure signed by Gov. Asa Hutchinson Monday bans companies from classifying lab-grown meat products or meat substitutes as meat, and prevents manufacturers from marketing "cauliflower rice" if the product contains no rice.").

enjoining implementation of the statute.¹¹⁶ The bill, originally scheduled to go into effect July 24, 2019,¹¹⁷ would prevent alternative meat companies from classifying their products as "meat."¹¹⁸ It would also prevent manufacturers of cauliflower products from marketing their items as "cauliflower rice" if the product lacks rice.¹¹⁹ Violators would face up to a \$1,000 fine, which would go towards the state Agriculture Department's Plant Board Fund.¹²⁰ Bill sponsor Representative David Hillman defended this strict labeling scheme, stating "[t]his law only affects people who want to deceive the public about how their food is originated."¹²¹ Arkansas is the nation's top rice-producing state.¹²²

II. ANALYSIS

A. The Legal Standard for Challenging State Regulation of Commercial Speech

Lab-grown meat companies and activist groups, such as the American Civil Liberties Union (ACLU), have sued a few states passing statutes restricting use of the term "meat," arguing that these statutes are unconstitutional.¹²³ Specifically, these groups assert that the statutes violate the Free Speech Clause of the First Amendment.¹²⁴ The First Amendment protects commercial speech, which the Supreme Court has defined as "expression related solely to the economic interests of the speaker and its audience," or "speech proposing a commercial

^{116.} See Linda Satter, Federal Judge Halts Arkansas Law on Plant-Based Food Labeling, ARK. DEMOCRAT GAZETTE (Dec. 12, 2019, 7:07 AM), https://www.arkansasonline.com/news/2019/dec/12/federal-judge-halts-arkansas-law-on-pla-1/ [https://perma.cc/QLW6-XU3N]. The merits of the preliminary injunction are discussed further in Section II.B.

^{117.} See id.

^{118.} See Arkansas Governor Signs a 'Truth in Labeling' Bill, supra note 115.

^{119.} See id.

^{120.} See id.

^{121.} See id.

^{122.} See Rice Sector at a Glance, U.S. DEP'T AGRIC., https://www.ers.usda.gov/top-ics/crops/rice/rice-sector-at-a-glance/ [https://perma.cc/9SA5-CD26] (last updated June 30, 2020).

^{123.} See Beth Kaiserman, Plant-Based Labeling: Tofurky's Lawsuit, PBFA Standards, NOSH (Dec. 12, 2019, 5:51 PM), https://www.nosh.com/news/2019/plant-based-labeling-tofurkys-lawsuit-pbfa-standards [https://perma.cc/Z5FE-6CSX] (explaining how Tofurky and activist groups sued Missouri in 2018 and Arkansas in 2019 for their statutes prohibiting use of the term "meat"); see also Carmen Reinicke, These 3 Lawsuits Are Protecting the Rights of Companies like Beyond Meat to Call Their Products 'Burgers,' 'Hot Dogs,' and Other Words Associated with Meat, BUS. INSIDER (Aug. 11, 2019, 3:21 PM), https://markets.businessinsider.com/news/stocks/whatstates-have-laws-what-to-call-plant-based-meat-2019-7-1028436300# [https://perma.cc/M2W5-PENR].

^{124.} See Kaiserman, supra note 123; Reinicke, supra note 123.

transaction."¹²⁵ The landmark case addressing constitutional protection of commercial speech is Central Hudson Gas & Electric Corporation v. Public Service Commission of New York. ¹²⁶ In Central Hudson, the Supreme Court considered four factors when determining whether there had been an unconstitutional violation of 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. ¹²⁷

In subsequent applications of this *Central Hudson* four-factor test, the Supreme Court has held that, under the first factor, the First Amendment does not protect commercial speech that promotes unlawful activity or is misleading.¹²⁸ In such instances, statutes prohibiting harmful or misleading speech are permissible because they are necessary to protect the public.¹²⁹ The Court defines "inherently misleading speech" as speech that will "inevitably be misleading to consumers."¹³⁰ The deceptive nature of the content or advertisement can be inferred from the advertisement itself or from the personal experience of the intended audience.¹³¹ However, if the advertisement is related to neither unlawful nor misleading activity, then the "government's power is more circumscribed," and the court can proceed with the rest of the *Central Hudson* framework.¹³²

The second step of the *Central Hudson* test requires the state to show that its restrictions on commercial speech help further a substantial state interest. ¹³³ To do so, the state may exhibit the significance of the harm it seeks to prevent and "demonstrate the substantiality of the interests with anecdotes, history, consensus, and simple common sense." ¹³⁴ The *Central Hudson* test requires the court to only analyze the interests put forward by the state. ¹³⁵ This means

^{125.} Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y., 447 U.S. 557, 561–62 (1980) (holding that although commercial speech is protected, it is subject to higher degrees of government regulation compared to other forms of speech).

^{126.} See generally id. at 566.

^{127.} See id.

^{128.} See Thompson v. W. States Med. Ctr., 535 U.S. 357, 367 (2002).

^{129.} See In re R. M. J., 455 U.S. 191, 203 (1982).

^{130. 1-800-411-}Pain Referral Serv., LLC v. Otto, 744 F.3d 1045, 1056 (2014) (quoting Bates v. State Bar of Ariz., 433 U.S. 350, 372 (1977)).

^{131.} Id. (quoting In re R. M. J., 455 U.S. at 203).

^{132.} Cent. Hudson, 447 U.S. at 564.

^{133.} See id.

^{134.} Mo. ex rel. Nixon v. Am. Blast Fax, Inc., 323 F.3d 649, 654 (8th Cir. 2003).

^{135.} See id.

that the court cannot insert its own ideas as to what state interests the restriction might protect. 136

The third step of the analysis requires the state to demonstrate that the challenged law advances the government's interest in a "direct and material way." It is not sufficient that the challenged law provides "ineffective or remote support." ¹³⁸

Finally, the fourth inquiry asks whether the speech restriction is "more extensive than necessary" to support the government's alleged interest. There must exist a reasonable "fit between the legislature's ends and the means chosen to accomplish those ends, a means narrowly tailored to achieve the desired objective." However, the state does not need to show that the restriction is the "least severe" of all alternatives. He state does not need to show that the restriction is the "least severe" of all alternatives.

B. Applying Central Hudson to Alternative Meat Labeling Laws

The Good Food Institute (a nonprofit advocacy organization) and Tofurky (a plant-based meat producer) challenged the Missouri statute restricting use of the term "meat" in Tofurky's labels and advertisements. 142 The plaintiffs alleged that the statute violated their First Amendment right, the Dormant Commerce Clause, and their right to Due Process. 143 Additionally, the plaintiffs argued that the legislature's reason for the statute was unfounded and pretextual because there was no evidence of consumer confusion when distinguishing between meat- and plant-based products. 144 The plaintiffs claimed that the real purpose of the statute was to protect the animal agricultural industry from facing any substantial competition from plant-based meat and lab-grown meat companies. 145 Furthermore, the plaintiffs alleged that the statute violated their right to free commercial speech, which is protected by the First Amendment. 146

^{136.} Edenfield v. Fane, 507 U.S. 761, 768 (1993).

^{137.} Id.

^{138.} Cent. Hudson, 447 U.S. at 564.

^{139.} Id. at 566.

^{140.} Lorillard Tobacco Co. v. Reilly, 533 U.S. 525, 556 (2001) (quoting Fla. Bar v. Went For It, Inc., 515 U.S. 618, 632 (1995)).

^{141.} See Mo. Broads. Ass'n v. Lacy, 846 F.3d 295, 303 (8th Cir. 2017) (quoting Bd. of Trs. of State Univ. of N.Y. v. Fox, 492 U.S. 469, 480 (1989)).

^{142.} See Complaint for Declaratory and Injunctive Relief at 1, Turtle Island Foods, SPC v. Richardson, No. 18-cv-4173 (W.D. Mo. 2019).

^{143.} See id. at 1-2.

^{144.} See id. at 6.

^{145.} See id. at 5.

^{146.} See id. at 18.

Tofurky's motion for preliminary injunction was ultimately denied. He had been determining whether it should grant Tofurky's motion for preliminary injunction, the court considered: "(1) the threat of irreparable harm to the movant; (2) the state of the balance between this harm and the injury that granting the injunction will inflict on other parties litigants; (3) the probability that the movant will succeed on the merits; and (4) public interest." 148

In determining whether Tofurky would succeed on the merits. the court applied the Central Hudson test to the undisputed facts. 149 The court reasoned that the plaintiffs' claims were unlikely to succeed on the merits because Missouri's "statute only prohibits speech which would be misleading;" therefore, the state's restriction was not unconstitutional. 150 In fact, the court stated that the plaintiffs were unlikely to succeed because both parties conceded that Tofurky's advertisements complied with the Missouri statute and were not misleading to the public.¹⁵¹ This is because Tofurky frequently accompanies the term "meat" with "plant-based" or "veggie" in its advertisements. 152 The court declined to assess the probability of the plaintiffs' success on the Dormant Commerce Clause and Due Process claims because the plaintiffs did not assert these claims as a basis for entry of the preliminary injunction. 153 Since it was undisputed that Tofurky's advertisements were statute compliant, the plaintiffs could not demonstrate that the statute would cause any irreparable harm. 154 Furthermore, the court found that issuing an injunction would cause the state irreparable harm because it "would invade its sovereign authority to enact and enforce its own laws."155

While Tofurky was unsuccessful in attaining a preliminary injunction against the Missouri statute, it was able to obtain one to enjoin the Arkansas statute. ¹⁵⁶ Tofurky argued that certain provisions of the Arkansas statute restricted commercial speech, prevented companies from sharing truthful information about their products, and

^{147.} See Turtle Island Foods, SPC v. Richardson, No. 2:18-CV-04173, at 15 (W.D. Mo. Sept. 30, 2019) (order denying preliminary injunction).

^{148.} *Id.* at 4 (quoting Dataphase Sys., Inc. v. C L Sys., Inc., 640 F.2d 109, 114 (8th Cir. 1981)) (noting that the Eighth Circuit applies a heightened standard for enjoining state statutes).

^{149.} See generally id. at 9.

^{150.} *Id.* at 12.

^{151.} See id. at 11-12.

^{152.} See id. at 3.

^{153.} See id. at 14.

^{154.} See id.

^{155.} Id. at 15.

^{156.} See Turtle Island Foods SPC v. Soman, 424 F. Supp. 3d 552, 561 (E.D. Ark. 2019).

created consumer confusion.¹⁵⁷ The statute prohibited Tofurky from using words like "meat," "sausage," "roast," and "beef" to describe its plant-based meat products. 158 Furthermore, the statute "provide[d] no exception for plant-based meat producers that clearly identify their products as being vegetarian, vegan, or made from plants."159 Regarding the likelihood of success on the merits, the court found that Tofurky was likely to succeed with respect to its First Amendment claim, leading the court to decline to reach the merits of the Fourteenth Amendment claim. 160 The court found that Tofurky's advertisements were not misleading and that "the simple use of a word frequently used in relation to animal-based meats does not make use of that word in a different context inherently misleading."161 The court also found that, although combatting misleading and false advertisements is a legitimate and substantial state interest, Tofurky's advertisements did not threaten this interest because they were not misleading. 162 The court concluded that Tofurky faced a threat of irreparable harm with respect to its First Amendment right and the possible penalties and operational costs associated with violation of the statute. 163

Lastly, alternative meat companies gained another victory, this time without having to resort to litigation. As previously mentioned, Mississippi repealed its regulations restricting use of the term "meat" in plant-based meat advertisements. The Mississippi regulation, which went into effect July 1, 2019, was quickly withdrawn in September. Under the new regulations, veggie burgers can continue to use the word "meat," so long as they display qualifiers, such as "meatless," "plant-based," and "veggie." Unfortunately, it is not clear why Mississippi repealed this restriction, but perhaps it wanted to avoid litigation over the constitutionality of its original statute.

C. What Pending Case Law Reveals About Future Legislation

Although there is currently no leading case law addressing the constitutionality of state statutes restricting use of the term "meat" in

^{157.} See id.

^{158.} Id. at 563.

^{159.} Id.

^{160.} See id. at 571.

^{161.} Id. at 574.

^{162.} See id. at 575.

^{163.} See id. at 577-78.

^{164.} See Piper, supra note 103.

^{165.} See id.

^{166.} See id.

alternative meat advertisements, different stakeholders' responses to the pending litigation highlight potential issues. The responses from courts, states, and alternative meat stakeholders regarding this type of legislation give insight into the types of constitutional concerns that these statutes present. Specifically, alternative meat companies seem confident about challenging statutes that restrict altogether the use of the term "meat" in their meat advertisements. ¹⁶⁷ Courts appear likely to enjoin these statutes as well. ¹⁶⁸ Even Mississippi's hasty repeal of its statute that restricted use of the term "meat" hints that states wanting to pass these types of statutes recognize potential challenges.

Under the first *Central Hudson* factor, ¹⁷⁰ states might have a hard time demonstrating that use of the term "meat" in alternative meat advertisements is misleading. Since lab-grown meat products are not yet on the market, there are currently no surveys in relation to consumer confusion around lab-grown meat. However, some data reveals trends in general consumer knowledge regarding animal and plant-based food products. ¹⁷¹ For example, an online survey from the International Food Information Council (IFIC) found that 75 percent of consumers know that plant-based "milk" does not come from a cow. ¹⁷²

Most current plant-based meats research indicates that there is some consumer confusion; consumers, however, are not confusing plant-based meat products with traditional meat products. Rather, they are either overestimating the health benefits of "plant-based products" or, interestingly, underestimating the health benefits by assuming that these products are processed. Yet Furthermore, the

^{167.} See id.

^{168.} See Andrew Wimer, New Lawsuit Challenges Mississippi Labeling Law That Makes Selling "Veggie Burgers" a Crime, INST. FOR JUST. (July 2, 2019), https://ij.org/press-release/new-lawsuit-challenges-mississippi-labeling-law-that-makes-selling-veggie-burgers-a-crime/ [https://perma.cc/3K4Q-6D4R].

^{169.} See Piper, supra note 103.

^{170.} See supra Section II.A. Recall that the Supreme Court has held that, under the first factor, the First Amendment does not protect commercial speech that promotes unlawful activity or is misleading. See supra Section II.A.

^{171.} See Cathy Siegner, Survey: Most Consumers Aren't Confused About Dairy Terms for Plant-Based Alternatives, FOOD DIVE (Oct. 12, 2018), https://www.fooddive.com/news/survey-most-consumers-arent-confused-about-dairy-terms-for-plant-based-al/539489/ [https://perma.cc/L8UW-LPZD].

^{172.} See id.

^{173.} See Jessi Devenyns, Consumers Are Confused About the Definition of Plant-Based, Survey Finds, FOOD DIVE (May 23, 2019), https://www.fooddive.com/news/consumers-are-confused-about-the-definition-of-plant-based-survey-finds/555397/ [https://perma.cc/87CN-JXE3].

^{174.} See id.; Trey Malone & Brandon McFadden, Restricting Plant-Based 'Meat' Labels Won't Save the Meat Industry, CIV. EATS (Oct. 18, 2019), https://civileats.com/2019/10/18/restricting-plant-based-meat-labels-wont-save-the-meat-industry/ [https://perma.cc/6HYT-V9AB].

health-food movement has generated various terms relating to a "healthy diet" which can cause confusion. 175 Terms "plant-based," "vegan," "vegetarian," "natural," and "clean" might be incorrectly used interchangeably or conflated with being "healthy." Those individuals living outside of urban, "vegan-friendly" cities might be more susceptible to this confusion. 176 Another interesting finding of the IFIC survey is that shoppers have started to automatically assume that chemical-sounding ingredients are unhealthy, while assuming that items labeled "natural" (and those with fewer ingredients) are "clean" and "healthy."177 Although this evidence does show that consumers are confused about the products they see on the market, it does not support the claim that consumers are confusing alternative meats with traditional meat products. 178 Therefore, states might have a hard time satisfying the first step of Central Hudson, for it seems unlikely that use of the term "meat" in alternative meat advertisements is misleading to consumers.

Under the second *Central Hudson* factor,¹⁷⁹ states undoubtedly have a valid interest in consumer protection. This interest is particularly implicated when new or controversial products hit the market. While veggie burgers and plant-based products are neither new nor provocative, lab-grown meat presents various questions and concerns.¹⁸⁰ There are many uncertainties associated with lab-grown meat, such as its ingredients, taste, production, and short- and long-term effects on human health and the environment.¹⁸¹ Given these variables, state governments reasonably fear that consumers will mistakenly purchase a product without being fully informed. Furthermore, while part of the appeal of marketing plant-based meat products is that the products contain no meat, lab-grown meat companies have made it clear that they are trying to directly compete with traditional meat products.¹⁸² This could possibly result in

^{175.} See generally Sarah Klemm, Understanding Food Marketing Terms, EAT RIGHT (July 12, 2019), https://www.eatright.org/food/nutrition/nutrition-facts-and-food-labels/understanding-food-marketing-terms [https://perma.cc/2F47-7D7N] (providing an overview of some of the most popular terms associated with the health food movement and displaying how they can cause confusion among consumers).

^{176.} Devenyns, supra note 173.

^{177.} See id.

^{178.} See id.

^{179.} See supra Section II.A. Recall that the second step of the Central Hudson test requires the state to show that its restrictions on commercial speech help further a substantial state interest. See supra Section II.A.

^{180.} See supra Section I.B.2.

^{181.} See supra Section I.B.2.

^{182.} See Wakefield, supra note 15.

lab-grown meat companies trying to conceal the fact that their products are grown in labs; however, this may also be a selling point given the potential environmental and health benefits.

Under the third inquiry in Central Hudson, 183 data suggests that these state statutes regulating the use of the term "meat" would do little to help ease consumer confusion. A Cornell University study found that. while labeling is generally important for consumer awareness, small labeling changes are unlikely to have a huge effect on consumers' food-buying habits. 184 The survey asked 1,502 households across the United States whether forbidding food manufacturers from labeling plant-based and cell-based products as "meat" would help them better understand the ingredients and nutritional value of the products. 185 While the study did find that consumers generally prefer labeling policies to help guide their choices, it also showed that restrictions on use of the term "meat" may actually create more pushback against the meat industry. 186 Additionally, survey respondents were either shown existing plant-based meat labels (such as "veggie meat") or ones describing alternative meat products as "protein." 187 Both sets of respondents struggled to accurately predict the ingredients and the nutritional value of the products they looked at. 188 Ultimately, the study concluded that whether the label used the term "meat" or not. consumers knew little about what the products contained or what the health benefits or detriments were. 189

The fourth inquiry in *Central Hudson* asks whether the speech restriction is "more extensive than necessary" to support the government's alleged interest. ¹⁹⁰ Despite states having a valid interest in promoting informed consumer choice, the current jurisprudence discussed above suggests that banning use of the term "meat" altogether in alternative meat advertisements is not "narrowly tailored to achieve the desired objective." ¹⁹¹ For example, the Missouri court denied Tofurky's motion for preliminary injunction against the

^{183.} See supra Section II.A. Recall that the third step of the analysis requires the state to demonstrate that the challenged law directly and materially advances the government's interest. See supra Section II.A.

^{184.} Malone & McFadden, supra note 174.

^{185.} Id.

^{186.} See id.

^{187.} *Id*.

^{188.} See id.

^{189.} See id.

^{190.} See supra Section II.A.

^{191.} Lorillard Tobacco Co. v. Reilly, 533 U.S. 525, 556 (2001) (quoting Fla. Bar v. Went For It, Inc., 515 U.S. 618, 632 (1995)); see supra Section II.B.

Missouri statute because alternative meat companies were still able to use the term "meat," so long as they applied the appropriate qualifiers to inform consumers. ¹⁹² The Arkansas court approved Tofurky's motion for preliminary injunction because the Arkansas statute attempted to ban alternative meat producers from using the term "meat" altogether, even with the use of qualifiers. ¹⁹³ This suggests that an overall ban on the use of the term "meat" in alternative meat labeling is overly broad without any proper justifications.

III. SOLUTION

As the alternative meat industry continues to thrive, more state statutes regulating this area are likely to emerge. As indicated by the diverse set of statutes already being passed (and legally challenged), states, the federal government, and industry stakeholders are confused as to an effective and constitutional way to regulate this industry. ¹⁹⁴ This Note proposes a two-part solution. First, the US federal government, rather than individual states, should primarily regulate the labeling of alternative meats. Second, federal law should recognize use of the term "meat" in alternative meat labels as legal, so long as there are appropriate measures to avoid consumer confusion.

A. The Need for Federal Regulation

The FDA and the USDA have statutory authority to regulate plant-based meat and lab-grown meat.¹⁹⁵ There are currently long-standing regulations pertaining to transparency in labeling of processed foods, none of which contain any restrictions on use of the term "meat" in plant-based meat labels, so long as they are not misleading.¹⁹⁶ Furthermore, until 2019, states had consistently refrained from legislating in this domain.¹⁹⁷

The FDA and the USDA have yet to implement labeling regulations regarding lab-grown meat; however, as previously mentioned, they have agreed to jointly regulate lab-grown meat

^{192.} See supra Section II.B.

^{193.} See supra Section II.B.

^{194.} See generally supra Part II.

^{195.} See Milad Emamian, Emily Galik, Allie Gottlieb, Lynn McDonough & Lila Sevener, Meat and Meat Alternatives Regulation, REGUL. REV. (Jan. 18, 2020), https://www.theregreview.org/2020/01/18/saturday-seminar-meat-alternatives-regulation/ [https://perma.cc/69ZY-2Y4W].

^{196.} See supra Section I.C.1.

^{197.} See supra Section I.D.

products. 198 Given the federal government's public intention to regulate lab-grown meat products, 199 as well as its long-standing history of regulating food labels,200 the FDA is likely to implement labeling restrictions on lab-grown meat in the near future. It would benefit states not to interfere with this federal plan. Under the Supremacy Clause, all laws made furthering the Constitution and all treaties made under the authority of the United States are the "supreme Law of the Land."201 Thus, any state laws conflicting with federal law will likely be preempted and, as such, struck down if judicially challenged. Conflict preemption arises when "it is impossible . . . to comply with both state and federal requirements . . . or where state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."202 Thus, preemption will occur if state laws directly conflict with federal regulations of lab-grown meat or if Congress intended for federal agencies to solely regulate lab-grown meat to achieve national uniformity.203

Lastly, there are several practical considerations which support the federal government's regulation of alternative meat products. Due to its long-standing practice of regulating the national food industry, the federal government has the institutional competence and infrastructure to regulate these products in a way that is beneficial to market actors and the economy as a whole. On Uniform regulation of alternative meat products across the country will promote market efficiency by allowing companies to employ the same labeling and advertisement schemes across all states; this prevents companies from having to alter their branding by state or having to homogenize their schemes based on the state with the "strictest" advertising laws.

Additionally, given the current litigation already occurring after six states enacted statutes, ²⁰⁵ uniform regulation will prevent future litigation brought by alternative meat companies and their advocates. Uniform regulation will also help consumers make more informed

^{198.} See supra Section I.C.2.

^{199.} See supra Section I.C.2.

^{200.} See supra Section I.C.1.

^{201.} U.S. CONST. art. VI, cl. 2.

^{202.} Gade v. Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 98 (1992) (citing Fla. Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142-43 (1963); Hines v. Davidowitz, 312 U.S. 52, 67 (1941)).

^{203.} See id.

^{204.} See supra Section I.C.1.

^{205.} See Alina Selyukh, What Gets to Be a Burger? States Restrict Labels on Plant-Based Meat, NPR (July 23, 2019, 3:57 PM), https://www.npr.org/sections/thesalt/2019/07/23/744083270/what-gets-to-be-a-burger-states-restrict-labels-on-plant-based-meat [https://perma.cc/2VD2-QTXA].

purchases and easily distinguish among these products while traveling across state boundaries. While consumers may not currently be confused by alternative meat products and labels' use of the word "meat," conflicting state standards may change this. ²⁰⁶ Consumers may become accustomed to stricter labeling standards in one state and then become confused when they see less stringent standards in another. For example, if they learn that Georgia does not allow use of the term "meat" in alternative meat labels, consumers may assume that the same is true for neighboring states, causing them to mistakenly purchase alternative meat products lawfully using the term "meat."

Given the practical, economic, and legal benefits of uniform regulation, the federal government should continue to assume primary responsibility when regulating food labeling. This would include federal regulation of alternative meat labels.

B. Federal Regulation of Alternative Meat Labels

Federal regulations should not place a flat ban on use of the term "meat" in alternative meat labels so long as the labels are not misleading to consumers. Given the constitutional concerns associated with restricting commercial speech, the government should avoid doing so if there are other means to promote informed consumer choice.²⁰⁷ That being said, instead of censoring alternative meat companies, there are several other regulations or practices that can ensure that consumers are not confused by alternative meat companies' use of the term "meat."

Comprehensive federal regulation should allow use of the word "meat" in alternative meat advertisements so long as companies use appropriate qualifiers. Furthermore, it could require other regulatory measures relating to grocery store layout and the isolation of alternative meats away from traditional ones in order to increase transparency and consumer awareness.

Regulations can require that these companies use appropriate qualifiers or descriptions prominently displayed on the packaging of their products. For example, the regulation could mandate the use of words such as "veggie," "plant-based," "vegan," "vegetarian," "lab-grown," or "laboratory-produced." Even if words such as "veggie" or "plant-based" are still confusing to consumers, an additional label requirement such as "meat-free" or "meat-less" may help to avoid consumer confusion as well. The outcome of Tofurky's entry for

^{206.} See supra Section II.C.

^{207.} See supra Section II.C.

preliminary injunction against the Missouri and Arkansas statutes suggests that this type of regulation would be more durable in the face of litigation. 208

In addition to specific labeling requirements, other practical measures might reduce consumer confusion. Federal regulations could require grocery stores and retailers to create a physical distinction between traditional and alternative meat products. For example, some grocery stores have implemented this practice by keeping traditional meats together in the deli or refrigerated meat section and placing vegetarian and vegan meats near the produce area. This would help consumers better navigate the different products when shopping. Other grocery stores have created a section designated for more expensive, health-related food products.²⁰⁹ This section of the store includes "dry" foods, such as cereals and granola bars, alongside refrigerated items, such as frozen vegan dinners and alternative meat products.²¹⁰

C. Alternative Methods of Regulation

Aside from government regulation, industries might implement their own practices to help consumers distinguish their products. For example, the Vegan Awareness Foundation, a nonprofit organization that educates the public about veganism, has created the Certified Vegan Logo—a green-colored "V" placed on the packaging of vegan food products.²¹¹ This symbol is already widely implemented and helps consumers distinguish between vegan and non-vegan products.²¹² Similarly, the lab-grown meat industry could create a universal symbol meant to convey to public consumers that the product was cultivated within a laboratory. While this type of self-regulation requires consent on the part of lab-grown meat companies, the pending threat of government regulation may encourage this proactivity.

IV. CONCLUSION

The debate surrounding traditional and alternative meat is highly politicized. Today, meat consumption has many moral and political implications given its perceived association with

^{208.} See supra Section II.C.

^{209.} See Natural & Organic, KROGER, https://www.kroger.com/d/natural-organic (last visited Oct. 4, 2020). In Kroger, this section of the store is called "Natural & Organic." See id.

^{210.} See id.

^{211.} See What Is the Certified Vegan Logo?, VEGAN, https://vegan.org/certification/[https://perma.cc/WG5M-KFTY] (last visited Oct. 4, 2020).

^{212.} See id.

environmental sustainability, social justice, animal rights, and public health. This Note refrains from taking a position as to which industry is more ethical. Instead, it argues that protection of one's First Amendment right to commercial speech is the primary goal. Allowing states to restrict use of the term "meat" creates a dangerous precedent for restricting the commercial speech of other companies and industries. Although this Note focuses on alternative meat regulation, analogous issues and discussions are arising around cauliflower "rice" products, as well as non-dairy milk products. 213 The legal framework and solution posed by this Note may offer insight into the regulation of other food products that use words commonly associated with older, more "traditional" food items. Preventing lawful competition in the market is not a constitutional reason for restricting free speech. While prevention of consumer confusion may be a valid state interest, the federal government can employ several measures that achieve this goal without infringing on one's constitutional rights.

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^{213.} See Follansbee, supra note 18.

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The Vanderbilt Journal of Entertainment & Technology Law is published four times per year by the Vanderbilt Journal of Entertainment & Technology Law, Vanderbilt Law School, Nashville, TN 37203-1181. "Second Class" postage is paid at Nashville, Tennessee, and at an additional mailing office. POSTMASTER: Send address changes to Vanderbilt Journal of Entertainment & Technology Law, Vanderbilt Law School, 131 21st Avenue South, Nashville, TN 37203-1181.

Website and Blog: http://www.jetlaw.org

Subscriptions: Subscriptions are \$35.00 per volume (domestic) and \$40.00 per volume (foreign). Subscriptions commence with the Fall issue of each volume. All subscriptions are continued for each succeeding volume unless subscribers provide timely notice of cancellation. Address changes must be made at least six weeks before publication date. The Journal honors claims one year after the shipping date.

Inquiries and Information: Direct all address changes and requests for subscription information and back issues to Faye Johnson, Vanderbilt Journal of Entertainment & Technology Law, Vanderbilt Law School, 131 21st Avenue South, Nashville, TN 37203-1181. The price for back issues is \$20.00 per issue, not including shipping and handling. Please email Faye Johnson at faye.johnson@vanderbilt.edu. Back issues are also available in PDF format at http://www.jetlaw.org.

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Vanderbilt Journal of Entertainment & Technology Law (ISSN 1536-3872)

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