

“Beef—It’s *Not* What’s for Dinner”: The Implications of France’s Newest Law for the Future of Labelling Cultured Meat in the European Union

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Introduction	542
Part I: Background on LGM.....	545
A. Growth of the Lab-Grown Meat Market	545
B. New French Law Regulating the Lab Grown Meat Industry	547
Part II: State of the Law on LGM Regulation Across the World.....	550
A. Current Regulation of LGM Products in the EU	550
B. Current Regulation of LGM Products in the United States.....	552
i. Federal LGM Regulation	552
ii. State LGM Regulation	554
Part III: How LGMs Fit with the Current Public Health Climate.....	556
A. LGM Products May Aid the Fight Against Food Insecurity	556
B. LGM Products are Especially Valuable During Public Health Crises	558
C. LGM Products May Help Mitigate Climate Change	559
Part IV: Potential Ramifications of France’s Law and Next Steps for LGM Advocates	561
A. Legal Challenges to LGM Industry Growth	561
B. Chilling Effect on the Progress of the	

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LGM industry	563
C. Next Steps for LGM Advocates in EU	
Member State Legislatures	564
Conclusion	566

Introduction

For many consumers of the beloved cheeseburger, the idea of eating a burger made from something other than a cow seems like something out of a science fiction novel. However, the meat and agriculture industries have undergone a historic and radical transformation over the last decade.¹ It could soon be not only possible, but likely, that many hamburgers on supermarket shelves will omit the cow from the production process entirely. Lab-Grown Meat (“LGM”), also known as cell-cultured meat, plant-based meat, and in vitro meat,² is gaining unprecedented popularity and attention across the globe.

Although only “plant-based” meat is currently available in stores for consumers, similar LGM products could be widely available within the next few years.³ At its core, LGM is simply cells harvested from biological organisms and grown in controlled laboratory environments, which are then used to create products similar to traditional meat.⁴ While there are many different styles and types of LGM, most are similar in composition, purpose, and effect.⁵ LGM products have gained popularity in various

¹ Jonathan Seiber, *Lab-grown meat could be on store shelves by 2022, thanks to Future Meat Technologies*, TECHCRUNCH (Oct. 10, 2019), <https://techcrunch.com/2019/10/10/lab-grown-meat-could-be-on-store-shelves-by-2022-thanks-to-future-meat-technologies/> [https://perma.cc/4YUJ-KBWC].

² Sharma et. al., *In vitro meat production system: why and how?*, J. FOOD SCI. TECH., Dec. 2015, at 7599, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4648904/> [perma.cc/J8z9-H6DR].

³ Tamar Haspel, *Lab-grown meat and the fight over what it can be called, explained*, VOX (Aug. 31, 2018), <https://www.vox.com/2018/8/30/17799874/lab-grown-meat-memphis-just-animal-cell> [https://perma.cc/X99N-LRRE].

⁴ 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/aa893f34-e630-11e5-a6f3-21ccdbc5f74e_story.html [https://perma.cc/U4J8-H895].

⁵ See Stephens et al., *Bringing Cultured Meat to Market: Technical, socio-political,*

demographics and economies across the globe.⁶

The European Union (“EU”) is the region with arguably the greatest interest and expansion in LGM businesses, with the region investing heavily in new LGM start-ups and projects.⁷ Due to skyrocketing demand, the EU and individual member state governments are scrambling to keep up with the LGM industry.⁸ In addition, the industry’s nascency means that regulations in the EU are relatively sparse.⁹ Most existing regulations on this topic only begin to address the essential questions of safety, approval, consistency, labelling, and marketing.¹⁰ Many of the most important regulations of the LGM industry will be enacted by the European Parliament, not individual member states.¹¹ However, in response to increased calls for regulation of this burgeoning industry, some individual member states began to regulate LGMs on their own.¹² Although the EU continues to stress the importance

and regulatory challenges in cellular agriculture, TRENDS IN FOOD, SCIENCE, & TECH., Aug. 2018, at 156.

⁶ Kelsey Piper, *Can you guess which Americans are most into plant-based meat?*, VOX (Jan. 29, 2020), <https://www.vox.com/future-perfect/2020/1/29/21110967/gallup-poll-plant-based-meat-vegan-climate-animals> (“According to the survey, forty-one percent of Americans have tried a plant based meat products at some point, including half of Americans under age 50. The people who’ve tried plant-based meat come from every demographic category and background: 39 percent of men and 43 percent of women have eaten them . . . 42 percent of white Americans and 38 percent of nonwhite Americans”) [<https://perma.cc/GK4K-G9XP>].

⁷ Oliver Morrison, *EU assigns first ever funds for cultured meat project*, FOODNAVIGATOR (Oct. 14, 2020), <https://www.foodnavigator.com/Article/2020/10/14/EU-assigns-first-ever-funds-for-cultured-meat-project> (“The subsidy – believed to be the first time a lab-grown meat project has enjoyed Brussels’ funds – is part of the EU’s Green Deal which plans on the region being climate-neutral by 2050.”) [<https://perma.cc/243B-93FV>].

⁸ See Antony Froggatt & Laura Wellesley, *Meat Analogues Considerations for the EU 22*, at 3 (Chatham House, 2019) [hereinafter Froggatt and Wellesley].

⁹ See *id.* at 22.

¹⁰ See *id.* at 22–25.

¹¹ See *id.* at 27 (“In an opinion published in October 2017, the EC recognized that greater clarity is needed and, as part of its Regulatory Fitness and Performance Programme, it announced that a review of the labelling of vegan and vegetarian food will begin in 2019. The Commission will likely prepare an implementing act, specifying how these foods may be labelled, as indicated in Article 26 of the FIC Regulation.”).

¹² See Loi 2020-699 du 10 juin 2020 relative à la transparence de l’information sur les produits agricoles et alimentaires [relating to the transparency of information on agricultural and food products], Journal Officiel de la République Française [J.O.] [Official Gazette of France], Nov. 6, 2020 [hereinafter French LGM Law].

of the Common Market Scheme within member state borders, the EU has largely acquiesced to individual member states passing their own regulations in this sector.¹³

The EU member state leading the way in LGM regulation is France. Beginning with their stringent regulations and laws on soymilk earlier this decade,¹⁴ France took aggressive steps to regulate and inhibit the growth of revolutionary food products within its borders. Most recently, France notified the EU of a significant new regulation on the sale and labeling of food that will, among other things, “prohibit[] the use of names used to indicate foodstuffs of animal origin, to describe, market and promote foodstuffs containing vegetable protein.”¹⁵ In essence, this law would limit the ability of businesses to market their LGM products to consumers as “meat.” Vegan rights groups were quick to challenge the legality of this new law.¹⁶ Vegan rights groups maintain that these laws are “disproportionate, protectionist, and incompatible with EU rules.”¹⁷ The EU courts have yet to weigh in on this new regulation, as they continue to ponder the EU’s LGM regulatory landscape. Regardless of the EU courts’ positions, this new law will significantly impact other EU member states, the EU single market, and EU policy on LGM in general.¹⁸

This note analyzes the impact of the new French law on the LGM industry and recommends alternative steps governments can take to support the growth of cultured meat. Part I provides a brief

¹³ Katy Askew, *EU ban on ‘meaty names’ for plant-based products ‘breach fundamental human rights’: Vegan Society*, FOODNAVIGATOR (May 9, 2019), <https://www.foodnavigator.com/Article/2019/05/09/EU-ban-on-meaty-names-for-plant-based-products-breach-fundamental-human-rights-Vegan-Society> (The EU Common Market is an economic system that guarantees the free movement of goods, services, capital, and people within 27 countries in Europe.) [<https://perma.cc/DZF5-LNYT>].

¹⁴ Nikhil Sonnad, *France’s language purists have decided that “soy milk” and “vegetarian sausage” do not exist*, QUARTZ (Apr. 23, 2018), <https://qz.com/1259707/france-bans-vegetarian-food-words-language-purists-decide-that-soy-milk-should-not-exist/> [<https://perma.cc/A9RP-TBQZ>].

¹⁵ French LGM Law, *supra* note 12, art. 5.

¹⁶ Team Secretariat, *SAFE signs NGO Joint letter on the French Act on the transparency of information on agricultural and food products*, SAFE FOOD ADVOC. EUR. (July 15, 2020), <https://www.safefoodadvocacy.eu/safe-signs-ngo-joint-letter-on-the-french-act-on-the-transparency-of-information-on-agricultural-and-food-products/> [hereinafter Joint NGO Letter] [<https://perma.cc/DB4F-YQDW>].

¹⁷ *Id.*

¹⁸ *Id.*

history of LGMs in the EU and a synopsis of the new French law on the sale and labelling of LGMs. Part II analyzes the state of the law regarding LGMs across the world. Part III discusses the importance and significance of LGMs in the current public health climate. Finally, Part IV concludes with an examination of the ramifications of the French law on EU policy and discusses positive reforms to forthcoming regulation.

Part I: Background on LGM

A. *Growth of the Lab-Grown Meat Market*

Scientists experimented and theorized about growing meat in labs for decades, and the first lab-grown burger finally debuted in 2013—clocking in at an astronomical total cost of \$325,000.¹⁹ Since its pricey debut, the cost of a pound of cell-cultured meat has dropped to about \$10 per pound.²⁰ As more start-ups are launched every day, the price of lab-grown meat will continue to become more competitive with traditional meat costs. While still much higher than the average cost of a traditional hamburger,²¹ the price of a lab-grown burger is expected to drop even more in the next century.²² By 2025, the global meat industry will have a market value of more than \$7.3 trillion, and traditional beef is expected to comprise only about twenty-five percent of that market share.²³ The global market size of the cultured meat industry was estimated to be

¹⁹ Henry Fountain, *Building a \$325,000 Burger*, N.Y. TIMES (May 12, 2013), <https://www.nytimes.com/2013/05/14/science/engineering-the-325000-in-vitro-burger.html> [<https://perma.cc/9SCK-T8C3>].

²⁰ Amelia Lucas, *Lab-grown meat start-up raises \$14 million to build production plant*, CNBC (Oct. 10, 2019), <https://www.cnbc.com/2019/10/10/future-meat-technologies-a-lab-grown-meat-start-up-raises-14-million-dollars.html> [<https://perma.cc/AMH8-RY88>].

²¹ Andrés González & Silke Koltrowitz, *The \$280,000 lab-grown burger could be a more palatable \$10 in two years*, REUTERS (Jul. 9, 2019), <https://www.reuters.com/article/us-food-tech-labmeat/the-280000-lab-grown-burger-could-be-a-more-palatable-10-in-two-years-idUSKCN1U41W8> [<https://perma.cc/BSA9-CF68>].

²² Lucas, *supra* note 20.

²³ See Stephens et al., *supra* note 5, at 156; Isabella Grandic, *The next billion dollar company will be in lab-grown meat*, MEDIUM (Dec. 19, 2018), <https://medium.com/@izzygrandic/the-next-billion-dollar-company-will-be-in-lab-grown-meat-c7a806d3ac54> [<https://perma.cc/K887-5PU7>].

more than \$206 million in 2022,²⁴ and the industry is expected to grow to a market cap of more than \$572 million by 2027.²⁵

With the lofty goal of “eating” into the meat market, LGM companies face many political, social, and perception obstacles. Two of the most important barriers to the rise in prominence of LGM products are public perception and government restrictions on labelling.²⁶ When LGM products were first introduced to the public, they faced sharp skepticism from traditional meat consumers.²⁷ Over the last few years, with proper advertising and messaging campaigns from advocates, attitudes on LGM products have steadily improved.²⁸ When properly and adequately informed, consumers are significantly more receptive to the possibility of trying these products.²⁹ Careful testing of labelling and production of these products as “meat” is essential for LGM companies to overcome the initial “ick” factor that many consumers feel towards this nascent industry.³⁰

²⁴ Market Data Forecast, *Global Cultured Meat Market Analysis by Source (Poultry, Beef, Seafood, Pork, and Duck), End-Use (Nuggets, Burgers, Meatballs, Sausages, Hot Dogs), and by Regional Analysis (North America, Europe, Asia Pacific, Latin America, and Middle East & Africa) - Global Industry Analysis, Size, Share, Growth, Trends, and Forecast (2020 – 2025)*, MKT. DATA FORECAST (Jan. 2022), <https://www.marketdataforecast.com/market-reports/cultured-meat-market> [https://perma.cc/M7JP-6K8S].

²⁵ *Id.*

²⁶ Stephens et al., *supra* note 5, at 160–62.

²⁷ Mike Ives, *Singapore Approves a Lab-Meat Product, a Global First*, N.Y. TIMES (Dec. 2, 2020), <https://www.nytimes.com/2020/12/02/business/singapore-lab-meat.html> (“[This] effort has faced multiple challenges, from skepticism over something that comes from a lab to questions about what governments might think.”) [https://perma.cc/G4ZS-2FJ8].

²⁸ Stephens et al., *supra* note 5, at 161 (“Most studies report a diversity of responses spanning positive and negative, although the Finnish study found notably lower levels of support for cultured meat, while the Dutch study suggested the more participants learnt about cultured meat the more they were willing to support it.”).

²⁹ Suzanne Jacobs, *Lab-grown meat could be the future – if we can figure out how to make it not gross*, VOX (Aug. 15, 2015), <https://www.vox.com/2015/8/15/9149725/laboratory-meat> (“But then can der Weele observed something interesting. After just a brief conversation – sometimes only a few minutes – many who reacted negatively at first started to reconsider, van der Weele says.”) [https://perma.cc/3Q2T-KAT6].

³⁰ Claudia Geib, *Companies Are Betting on Lab-Grown Meat, but None Know How to Get You to Eat It*, FUTURISM (Mar. 16, 2018), <https://futurism.com/companies-lab-grown-meat-none-plans-eat-it> (“But there’s a significant factor that these companies seem

Excitement—and controversy—over LGM products is particularly strong in many European countries and within the EU. Over the next several decades, the EU is primed to be a key battleground for the future of the LGM industry. Motivated by an increased awareness of animal welfare and environmental degradation, European investors are heavily supporting the growth of the LGM industry.³¹ These efforts have elicited mixed reactions from governing bodies.³² While regulation of commercial products within the EU is traditionally reserved for the European Parliament, some member states took the initiative to begin regulating LGM products on their own.³³ Against this economic expansion and alleged consumer uncertainty, France took the bold step of putting forth some of the most stringent regulations on the LGM industry throughout all of the EU.

B. New French Law Regulating the Lab Grown Meat Industry

On June 5, 2020, France notified the European Commission of the passage of their newest law on the LGM industry. Named “Act on the Transparency of Information on Agricultural and Food Products,” this law is broadly designed to regulate the labelling, presentation, and advertising of foodstuffs within the French economy.³⁴ The most relevant section for the LGM industry is Article 5, which purports to “prohibit[] the use of names used to indicate foodstuffs of animal origin, to describe, market and promote foodstuffs containing vegetable proteins, beyond a

to not have considered: the ‘ick factor.’ That is, how will companies get people accustomed to this understandably off-putting concept? ‘People will get used to clean meat in a hurry if it tastes right, if it smells right,’ asserts culinary biochemist Ali Bouzari.”) [https://perma.cc/TV54-XBA2].

³¹ Kitty Knowles, *What’s cooking Europe’s lab-grown meat startups?*, SIFTED (Jan. 18, 2019), <https://sifted.eu/articles/lab-grown-meat-startups-higher-steaks-meatable-supermeat-fm-technologies/> [https://perma.cc/5UDN-PH8B].

³² Compare Natasha Lomas, *Lab-grown meat project gets first taste of EU public funds*, TECHCRUNCH (Oct. 14, 2020), <https://techcrunch.com/2020/10/14/lab-grown-meat-project-gets-first-taste-of-eu-public-funds/> [https://perma.cc/7MMY-KUV8], and Peter Teffer, *EU should clarify rules for plant burgers and lab meat*, EU OBSERVER (Feb. 19, 2019), <https://euobserver.com/environment/144195> [https://perma.cc/P8D7-6G6A].

³³ See French LGM Law, *supra* note 12, art. 5.

³⁴ *Id.*

threshold which will be set by decree.”³⁵ The new labelling requirements became effective on January 1, 2021.³⁶ In the initial transmission to the EU, France stated that this law will not produce a “significant impact on international trade,” yet declined to produce an impact assessment for the proposed law.³⁷ While France asserts that this law will not impact interstate commerce, experts disagree with that brief dismissal of trade implications on the EU common market.³⁸

The French government listed several reasons for the passage of this law. The most important stated rationale for this new law was an effort to promote the “tradition” of French cuisine.³⁹ Moreover, the French government passed this law to protect consumers from “deceptive” advertising by LGM companies attempting to break into the market and prevent French consumers from confusion at the marketplace.⁴⁰ France hopes this law will promote transparency and clarity in advertising and packaging of foodstuffs, clearly differentiating between LGM products and traditional meat products.⁴¹ While some surveys in the United States show potential consumer confusion, those same surveys indicate a general lack of information on food nutrition as a factor in the decision to purchase an item.⁴² Despite the French government’s concerns, recent surveys of consumers in other EU member states do not show

³⁵ *Id.*

³⁶ See Louisa Guillot & Zosia Wanat, *French War on ‘veggie burgers’ comes to Brussels*, POLITICO (Jul. 7, 2020), <https://www.politico.eu/article/french-war-on-veggie-burgers-comes-to-brussels/#:~:text=Vegetarian%20groups%20argue%20a%20new,product%20names%20violates%20EU%20rules.&text=A%20new%20French%20law%20that,what%20to%20call%20vegetarian%20meals> [https://perma.cc/TA79-7UAV].

³⁷ French LGM Law, *supra* note 12.

³⁸ Askew, *supra* note 13 (“Indeed, [Luca Bucchini, managing director of Hylobates Consulting] went as far to describe the national initiatives from countries like France and Italy as a ‘blow to the certainty of EU law’ and ‘more so to the idea of the single market.’”).

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ Askew, *supra* note 13 (“Agnés Pannier-Runnacher, Secretary of State to the Minister of the Economy and Finance commented: ‘Improving the labelling of food products is essential to allow consumers to become real “consumer-actors”’”).

⁴² See *National Cattlemen’s Beef Association, Consumer Research Shows Widespread Confusion About Contents of Plant-Based Fake Meat*, S.E. AGNET (Feb. 7, 2020), <https://southeastagnet.com/2020/02/07/consumer-research-widespread-confusion-contents-plant-based-fake-meat/> [https://perma.cc/HW7P-7M83].

widespread instances of consumer confusion.⁴³

Opponents of the law feel the law is motivated less by concerns of clarity in packaging and more by a desire to protect the interests of the traditional agricultural industry.⁴⁴ Traditional agricultural companies are extremely vocal in their fight against the rise of LGM products.⁴⁵ Opponents of the law also point to the impact that this restrictive law will have on the rest of the EU member states.⁴⁶ LGM advocates are concerned that this law will stifle the impressive growth that this industry has seen over the last decade and will stunt the growth of LGM products in favor of traditional agricultural products.⁴⁷ Advocates are also extremely concerned about the effect this law will have on the free trade and movement of LGM products across EU borders.⁴⁸ Although France believes this law will not impact international trade in a significant way, many companies may be confused as they attempt to market their LGM products across the EU common market and could be subject to fines for improperly advertising LGM products similarly across different member states.⁴⁹

Finally, advocates say this law may violate the EU common market rules and disrupt food supply chains at a time when food supply chains are increasingly under immense pressure.⁵⁰ Vegan rights groups have already filed official complaints with the EU. As the EU considers how to deal with France's new law, the European Parliament debates what actions to take at the supranational level.⁵¹

⁴³ Ellen J. Van Loo, Vincenzina Caputo, & Jayson L. Lusk, *Consumer preferences for farm-raised meat, lab-grown meat, and plant-based meat alternatives: Does information or brand matter?*, FOOD POL'Y, Aug. 2020, at 1, 2.

⁴⁴ Joint NGO Letter, *supra* note 16.

⁴⁵ See generally Frank Morris, *Big Beef Prepares For Battle, As Interest Grows In Plant-Based And Lab-Grown Meats*, NPR (Dec. 18, 2018), <https://www.npr.org/sections/thesalt/2018/12/18/677581085/big-beef-prepares-for-battle-as-interest-grows-in-plant-based-and-lab-grown-meat> (discussing the increased attention that the cattle industry has shown as a result of the growth of the LGM industry over the last several years) [<https://perma.cc/KNV7-A368>].

⁴⁶ Joint NGO Letter, *supra* note 16.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ Astrid Seehafer, *Meat 2.0: The regulatory environment of artificial meat in the European Union*, LEXOLOGY (Nov. 11, 2019), <https://www.lexology.com/library>

Part II: State of the Law on LGM Regulation Across the World

A. Current Regulation of LGM Products in the EU

While the European Commission and Parliament discuss their response to this French law and consider new policy measures for this issue, it is important to understand the existing regulatory landscape of the EU in which LGM products will operate. While LGM products have a relatively new presence on supermarket shelves, legislatures across the world contemplated their existence decades ago.⁵² European Union Regulation EC No. 178/2002 established the general principles of food regulation in the EU.⁵³ The most important EU policy interests regarding food were stated to be protecting human life, health, and consumer interests, as well as ensuring the free movement of safe food products throughout the EU.⁵⁴

This regulation also created the European Food Safety Agency (“EFSA”), an independent body meant to ensure compliance with food safety standards and implement EU food policies throughout member states.⁵⁵ As an advisor to the European Council, the EFSA also regulates and controls the approval of “novel foods” within the EU.⁵⁶ Novel foods are those that do not have a history of consumption or presence in the EU prior to May 15, 1997, when the law went into effect.⁵⁷ The novel food regulation serves three purposes: (1) ensuring new foods are safe to consume; (2) ensuring new foods are labelled adequately as to not confuse consumers; and (3) ensuring new foods are not nutritionally disadvantageous compared to existing foods they seek to replace.⁵⁸

Rules that specifically address the labelling of food products are

/detail.aspx?g=2dfed20b-84c5-4d3d-8a12-20170d7d8031 (“Overall, however, there are ongoing political and legal debates on the European level – and also in the US – on whether and how artificial meat products can be marketed with names traditionally associated with animal source foods.”) [<https://perma.cc/T8AE-A53Q>].

⁵² See Froggatt and Wellesley, *supra* note 8, at 23–24.

⁵³ Commission Regulation 178/2002, 2002 J.O. (L31/1) 1 (EC).

⁵⁴ *Id.* at art 5.

⁵⁵ *Id.*

⁵⁶ See Froggatt and Wellesley, *supra* note 8, at 23–24.

⁵⁷ Commission Regulation 258/97, art. 3, 1997 O.J. (L 43) 1.

⁵⁸ *Id.*

located in two regulations. The first, EU Regulation No. 1169/2011, asserts that food information should not be misleading “by suggesting, by means of the appearance, the description or pictorial representations, the presence of a particular food or an ingredient, while in reality a component naturally present or an ingredient normally used in that food has been substituted with a different component or a different ingredient.”⁵⁹ The second and most relevant to the development of LGM products, Regulation No. 1308/2013, established common market categorizations of agricultural products, defining “cheese, milk, and similar designations” as coming from an animal.⁶⁰ This regulation does not define meat-related terms such as “burgers” or “steaks,” and EU law does not explicitly restrict or prevent the use of meat-related terms for certain foodstuffs.⁶¹

Recently, the European Court of Justice (“ECJ”) took up the issue of labelling plant-based products as it relates to dairy products. In a case referred from a German court, the ECJ ruled that designations such as “milk” or “cheese” could not be legally used to market purely plant-based products in the EU.⁶² Although plaintiff Tofutown argued its advertisements and packaging did not violate the 2013 regulation, the ECJ disagreed, finding that the addition of qualifying words to the products did not absolve the company of violating the prohibition.⁶³ Thus, the ECJ found the plant-based products violated the novel foods regulations of the EU and ordered their labelling practices changed. Notably, the ruling did not address the question of whether an identical line of reasoning could be applied to the labelling of meat-based products.⁶⁴

Because the in vitro meat subsection of LGM products is not yet authorized for the EU market, no consensus exists as to its legal

⁵⁹ Commission Regulation 1169/2011, 2011 J.O. (L 304/18) 1 (EU).

⁶⁰ Commission Regulation 1308/2013, 2013 J.O. (L 347/671) 1 (EU).

⁶¹ *See id.*

⁶² Case C-422/16, *Verband Sozialer Wettbewerb eV v. TofuTown.com GmbH*, 2017 EUR-Lex CELEX LEXIS 458 (Jun. 14, 2017).

⁶³ *Id.*

⁶⁴ Catherine Lamb, *Want a Veggie ‘Disc’? EU Cracks Down on Plant-Based Meat Labeling*, THE SPOON (Apr. 5, 2019), <https://thespoon.tech/want-a-veggie-disc-eu-cracks-down-on-plant-based-meat-labeling/> (“European meat corporations were apparently not involved in the ruling, but they’ve got to be happy about this.”) [<https://perma.cc/FC9G-WHHY>].

name.⁶⁵ The ultimate approval of all LGM products on EU supermarket shelves will likely be accompanied by a litany of specifications on packaging and labelling.⁶⁶ However, narrowing down exactly what those regulations will entail, and which side of this debate the legislation will support, will be a much harder task.⁶⁷

B. Current Regulation of LGM Products in the United States

After the EU, the region with the biggest growth in LGM products and technology is the United States. With the plant-based meat industry finding considerable success on American supermarket shelves over the last twelve months,⁶⁸ the United States has only just begun to take initial regulatory steps at both the federal and the state level. While the federal government lags behind, some states are forging ahead with regulations on the labelling, production, and sale of plant-based meats and LGM products.⁶⁹ However, both levels of government are still very much in the initial stages of regulation for this industry. Analyzing the regulatory frameworks of the United States provides a better understanding of the political climate surrounding LGM products and better informs our predictions on the effects of labelling regulations.

i. Federal LGM Regulation

The U.S. federal government is in the early stages of developing a framework for evaluating and regulating LGM products. In the United States, federal regulation of food is jointly reserved for the Food and Drug Administration (“FDA”) and the U.S. Department of Agriculture (“USDA”). Whether LGM products should be regulated by either branch exclusively is currently disputed—some LGM products may fall under the discretion of the FDA, while others may fall under the discretion of the USDA.⁷⁰ To settle this

⁶⁵ Froggatt and Wellesley, *supra* note 8, at 22.

⁶⁶ *Id.* at 28.

⁶⁷ Stephens et al., *supra* note 5, at 157.

⁶⁸ See Dana Hatic, *Impossible Foods Will Attempt the Impossible: A ‘World-Class’ Meatless Steak*, EATER (Jan. 11, 2019), <https://www.eater.com/2019/1/11/18177441/impossible-foods-fake-meat-substitute-steak> [<https://perma.cc/74C7-H256>].

⁶⁹ See *infra* 2(B)(ii).

⁷⁰ See Tate J. Salisbury, *Labeling the New Meats: Applying Preexisting Principles to the Regulation of Radical Products*, 97 WASH. U. L. REV. 1603, 1612 (2020).

question, the USDA and FDA announced a formal agreement of joint regulation that delegated custody of this issue to both departments.⁷¹ Under this agreement, the FDA and USDA will both have authority to regulate certain aspects of the LGM industry.

Initial FDA regulations on this industry generally mirrored EU regulations, calling for producers to clearly state and identify LGM products and their ingredients.⁷² The FDA has yet to release any specific regulations regarding labelling requirements of LGM products. The FDA stressed that the agencies' oversight is too fragmented for meaningful regulation to take place.⁷³ The key issues to consider before implementing widespread rulemakings within the United States were identified but are not yet fully fleshed out.⁷⁴ Senior agency officials admit the agencies cannot promulgate complete rules until they have enough information to conduct a holistic analysis of individual products.⁷⁵

However, given pressure by the U.S. Cattle Association, more regulations will likely be announced by the FDA in the coming years.⁷⁶ While these agencies mull over regulations, the U.S. Congress has proposed several restrictive laws on labelling and packaging LGM products.⁷⁷ Although these bills have yet to pass a majority of both houses and be signed into law, they are likely a good indication of the current political climate and attitudes toward LGM products.

In anticipation of potential regulations, the Plant Based Foods Association ("PBFA") released a "first of its kind" voluntary labelling standard for members to promote consistency in the industry and comply with federal regulations.⁷⁸ These standards are

⁷¹ *Id.*

⁷² *See id.* at 1619.

⁷³ U.S. Gov't Accountability Off., GAO-20-325, FDA and USDA Could Strengthen Existing Efforts to Prepare for Oversight of Cell-Cultured Meat 24 (2020) [hereinafter GAO Report].

⁷⁴ *Id.* at 39.

⁷⁵ *Id.* at 8.

⁷⁶ Elaine S. Povich, 'Fake Meat' Battle Spreads to More States, PEW (Jan. 25, 2019), <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2019/01/25/fake-meat-battle-spreads-to-more-states> [https://perma.cc/W4MK-4D89].

⁷⁷ *See* Real MEAT Act of 2019, H.R. 4881, 116th Cong. (2019).

⁷⁸ *Plant-Based Meat Labeling Standards Released*, PBFA (Dec. 9, 2019), <https://plantbasedfoods.org/plant-based-meat-labeling-standards-released/> [https://perma.cc/XJ2F-RE9P].

designed to attract new consumers while relaying important information about their products and minimizing confusion for potential customers.⁷⁹ While not all organizations endorse or accommodate these standards, many signed on to support this movement. It is unclear what impact, if any, these standards will have on persuading opponents of LGM products to drop legal and political challenges.

ii. State LGM Regulation

At the state level, no shortage of attempts to rein in the LGM industry growth exist. In the last decade, several states in the United States passed laws attempting to regulate labelling and packaging LGM products.⁸⁰ The most commonly asserted rationale for enacting labelling restrictions and regulations on LGM products is the need to protect confused consumers from accidentally purchasing products they otherwise would not want.⁸¹ State legislatures seem to be extremely concerned that average consumers are not prepared for these products to appear on supermarket shelves without regulation on labelling.⁸² While LGM products will likely be too expensive to be widely marketed and purchased for several years, legislatures are passing preemptive laws in anticipation of this wave of products.⁸³

The state-level charge against the LGM industry is led most aggressively by Missouri. In August 2018, Missouri enacted a law that excluded all LGM products from the legal definition of “meat” within the state.⁸⁴ While LGM companies feared that this legislation would completely eliminate their business, the Missouri Department of Agriculture later explained this regulation would not apply to LGM products marketed as “meat” if they included a clear and appropriate qualifier on their packaging.⁸⁵ However, this law

⁷⁹ *Id.*

⁸⁰ Povich, *supra* note 76.

⁸¹ Megan Poiniski, *Cell-based meat products are years away, so why are states making so many laws about them?*, FOODDIVE (Feb. 12, 2020), <https://www.fooddive.com/news/cell-based-meat-products-are-years-away-so-why-are-states-making-so-many-l/571071/> [<https://perma.cc/BK87-DJE7>].

⁸² Povich, *supra* note 76.

⁸³ *Id.*

⁸⁴ MO. REV. STAT. § 265.494(7) (2018).

⁸⁵ Mem. from the Mo. Dep’t of Agric. to the Meat Inspection Program, Missouri’s

and other regulatory hurdles will still produce significant barriers to these companies, their production lines, and consumer acceptance.⁸⁶

After Missouri, many states followed suit and passed similar laws to regulate LGM products.⁸⁷ By November 2020, thirty states passed some kind of regulation on the labelling and terminology of LGM products.⁸⁸ The states that passed the most stringent laws on LGM products tend to be the states whose economies are the most reliant on the traditional agriculture and cattle industries.⁸⁹ In Nebraska, a state largely dependent on traditional agriculture and livestock, state congresspeople went to great lengths to solicit input from state livestock and farm groups before enacting legislation on LGM products.⁹⁰

In general, the regulation of LGM products is a priority for many different state-level interest groups.⁹¹ The regulatory framework on labelling LGM products will be crucial to these industries' growth and survival.⁹² As such, it should come as no surprise that many of these state laws are being challenged in court on a litany of grounds.⁹³ Although LGM-product plaintiffs have not garnered much sympathy in federal district courts,⁹⁴ this legal battle will

Meat Advertising Law (Aug. 30, 2018), <https://www.courthousenews.com/wp-content/uploads/2020/11/missouri-meat-ads-memo.pdf> [<https://perma.cc/JD8J-4KL2>].

⁸⁶ See GAO Report, *supra* note 73, at 12–18 (discussing the regulatory challenges that the FDA faces before widespread approval and acceptance of lab-grown meat will occur).

⁸⁷ See VA. CODE ANN. § 3.2-5123 (2019).

⁸⁸ See Shareefah Taylor, Note, *Meat Wars: The Unsettled Intersection of Federal and State Food Labeling Regulations for Plant-Based Meat Alternatives*, 15 U. MASS. L. REV. 269, 275 (2020).

⁸⁹ See Povich, *supra* note 76.

⁹⁰ Sam Bloch, *Following Missouri's lead, other states take on cell-cultured meat*, THE COUNTER (Jan. 28, 2019), <https://thecounter.org/missouri-nebraska-cell-cultured-plant-based-meat-labeling/> [<https://perma.cc/4A4T-9PQQ>].

⁹¹ See *Food Safety Legislation 2019*, NAT'L CONF. OF ST. LEGISLATURES (Mar. 14, 2020), <https://www.ncsl.org/research/agriculture-and-rural-development/food-safety-legislation-2019.aspx> [<https://perma.cc/96GG-BF9R>].

⁹² See *supra* Introduction.

⁹³ See Bloch, *supra* note 90; Steve Davies, *Courts may provide guidance on plant and cell-based meat labeling laws*, AGRI-PULSE (Sept. 18, 2019), <https://www.agri-pulse.com/articles/12610-courts-may-provide-guidance-on-meat-labeling-laws> [<https://perma.cc/9MPF-GQ9D>].

⁹⁴ Dan Flynn, *Federal judge allows Missouri to enforce meat labeling law*, FOODSAFETYNEWS (Oct. 8, 2019), <https://www.foodsafetynews.com/2019/10/federal-judge-allows-missouri-to-enforce-meat-labeling-law/> [<https://perma.cc/P77B-XEVF>].

likely extend for decades.⁹⁵

Part III: How LGMs Fit with the Current Public Health Climate

Opponents of France's regulation of the LGM industry are primarily concerned that this law will act as a domino, encouraging other European nations to adopt similar restrictions on LGM products in the name of uniformity.⁹⁶ Critics contend that France's newest law will usher in an era of European regulation that will be protectionist, restrictive, and will disproportionately hinder the success of LGM products with potential consumers.⁹⁷ For a number of reasons, this law would be an incredibly dangerous precedent to set for EU member states.⁹⁸ Because LGM products have the potential to provide solutions to many public health and climate issues, Europe's inhibition of the LGM industry would only exacerbate those issues in the region.

A. LGM Products May Aid the Fight Against Food Insecurity

Global food insecurity is a persistent threat to both the health and stability of nation states and their citizens. Food insecurity is defined as the lack of access to consistent, sufficient, safe, and nutritious food.⁹⁹ More than 690 million people worldwide suffered from some level of food insecurity in 2020.¹⁰⁰ The effects of food insecurity are disproportionately felt by certain members of society: low income, less educated, and minority populations in each nation.¹⁰¹ These problems are not limited to health—they can drastically inhibit the ability to advance in society.¹⁰² Within the EU, these problems are particularly hard hitting. After 2008, an

⁹⁵ Haspel, *supra* note 3.

⁹⁶ See Askew, *supra* note 13 (discussing the implications of France's law on other European Union member states).

⁹⁷ Joint NGO letter, *supra* note 16.

⁹⁸ See *id.*

⁹⁹ FAO, IFAD, UNICEF, WFP, and WHO, *The State of Food Security and Nutrition in the World 2020*, 1 (2020).

¹⁰⁰ *Id.* at 3.

¹⁰¹ Jean C. Buzby & Jeffrey Hyman, *Total and Per Capita Value of Food Loss in the United States*, 37 FOOD POL'Y 561, 564 (2012).

¹⁰² See Jessica A. Cohen, *Ten Years of Leftovers with Many Hungry Still Left Over: A Decade of Donations Under the Bill Emerson Good Samaritan Food Donation Act*, 5 SEATTLE J. SOC. JUST. 455, 455 (2006).

estimated 13.5 million additional people in Europe became food insecure, which is astronomically higher than the historical trend.¹⁰³ In the wake of the COVID-19 Pandemic, food prices rose dramatically while access to food dropped precipitously, adding millions to the number of food insecure Europeans continent wide.¹⁰⁴

LGM products can provide unique solutions to overcome these issues. As worldwide demand for adequate food sources climb, traditional farming methods will soon become insufficient.¹⁰⁵ LGM products can be designed to maximize nutrition while limiting the potential introduction of pathogens into the food supply.¹⁰⁶ While all members of society will not switch to LGM products to anchor their diet, these products can help society transition into more sustainable feeding patterns that enable the most vulnerable populations to access safe, reliable sources of nutrition.¹⁰⁷ With these benefits, LGM products can help overcome the systemic inequality that plagues global agricultural supply chains.¹⁰⁸

Critics of LGM products are quick to emphasize potential shortcomings of the proposed solutions. Critics rightly point out that these products are currently too expensive to provide meaningful benefits to at-risk populations.¹⁰⁹ However, the price of

¹⁰³ Veronica Toffolutti, David Stuckler, & Martin McKee, *Is the COVID-19 pandemic turning into a European food crisis?*, EUR. J. PUB. HEALTH 626, 626 (2020).

¹⁰⁴ *Id.*

¹⁰⁵ Greg Foot, *Five ways we can feed the world in 2050*, BBC (last visited Mar. 8, 2022), <https://www.bbc.com/future/bspoke/follow-the-food/five-ways-we-can-feed-the-world-in-2050.html> (“Spending time with farmers, producers, retailers and consumers, I quickly saw how our current ways of growing, processing and selling food just aren’t scalable or sustainable. The only way we can feed 10 billion people by 2050 is if the farming and food industries become much more sustainable. And that requires changes to the whole model of growing, processing, transporting, storing and selling.”) [<https://perma.cc/XMH5-M2Q6>].

¹⁰⁶ Haspel, *supra* note 3 (“Since the meat is grown in a closed vessel in a sterile environment – as opposed to, say, a barn – the hope is that there would be less chance for pathogens to sneak in. That’s relevant for antibiotics, too.”).

¹⁰⁷ Laurence Gibbons, *Lab-grown meat may solve food insecurity crisis*, FOODMANUFACTURE (Nov. 1, 2012), <https://www.foodmanufacture.co.uk/Article/2012/11/01/Food-manufacturers-could-rely-on-lab-grown-meat> [<https://perma.cc/E3QQ-9KLZ>].

¹⁰⁸ *See id.*

¹⁰⁹ Sarah Duigan, *Lab-grown meat could leave marginalized people in need*, THE CONVERSATION (Mar. 25, 2020), <https://theconversation.com/lab-grown-meat-could-leave-marginalized-people-in-need-132653> [<https://perma.cc/5JN5-H5MW>].

LGM products has already dropped astronomically since 2013 and, with more investment, will likely continue to drop as more products are scaled up for mass production.¹¹⁰ While these populations might not immediately be able to afford these products, government programs and subsidies can offset costs to ease these products into the hands of at-risk populations and consumers.¹¹¹

B. LGM Products are Especially Valuable During Public Health Crises

The year 2020 exposed glaring flaws in our current global agricultural supply chain strategies. Not only has the COVID-19 pandemic exacerbated the problems of food insecurity for tens of millions of global citizens, the pandemic endangered many foundational food supply systems.¹¹² The pandemic hit meatpacking plants especially hard, forcing mass closures and scarcity while claiming the lives of dozens of workers.¹¹³ Worse, the problems that face these industries are only becoming more common. As Europe and the rest of the world battle a second wave of the COVID-19 pandemic,¹¹⁴ experts predict that similar pandemics will only increase in frequency during the twenty-first

¹¹⁰ Oliver Morrison, *Lab-grown meat prices to 'reach parity with regular meat before analogues'*, FOODNAVIGATOR (Nov. 19, 2020), <https://www.foodnavigator.com/Article/2020/11/19/Lab-grown-meat-prices-to-reach-parity-with-regular-meat-before-analogues> [https://perma.cc/V92K-9X2G].

¹¹¹ Katherine Baker, *Rethinking animal agricultural subsidies: 'Meat' the better alternatives*, PLANET FORWARD (Aug. 17, 2018), <https://www.planetforward.org/idea/food-subsidies-rethinking> ("Many high and low-tech alternative exist as promising solutions, but many remain underappreciated or underfunded. By redirecting global animal agricultural subsidies, there is great opportunity for impact.") [https://perma.cc/7CM9-H7GC].

¹¹² Serpil Aday & Mehmet Seckin Aday, *Impact of COVID-19 on the food supply chain*, FOOD QUALITY & SAFETY, 167, 169 (Aug. 16, 2020) ("[T]he supply chain is significantly affected as a result of the absence of local or migrant workers due to sickness or travel restrictions imposed by lockdown. It also weakens not only production abilities for others, but also their own food safety, in cases where the disease directly affects their health or movement.").

¹¹³ See *id.*; Noam Scheiber, *OSHA Criticized for Lax Regulation of Meatpacking in Pandemic*, N.Y. TIMES (Oct. 22, 2020), <https://www.nytimes.com/2020/10/22/business/economy/osha-coronavirus-meat.html?action=click&module=Top%20Stories&pgtype=Homepage> [https://perma.cc/DM3E-XXEN].

¹¹⁴ Patrick Kingsley and José Bautista, *'Here We Go Again': A Second Virus Wave Grips Spain*, N.Y. TIMES (Aug. 31, 2020), <https://www.nytimes.com/2020/08/31/world/europe/coronavirus-covid-spain-second-wave.html> [https://perma.cc/8X3S-8T2W].

century.¹¹⁵

While problems with food safety and handling are inherent in the traditional farming industry,¹¹⁶ LGM production could eliminate some of those problems. By using sterilized equipment and replication techniques, LGM production avoids many of the harmful risks posed by traditional farming and cultivation of meat.¹¹⁷ While no process is completely safe, LGM production poses significantly less risk to consumers and workers.¹¹⁸ At a time when food supply could be critical,¹¹⁹ maximizing the sources of meat production for Europe and the world must be a leading priority.

C. LGM Products May Help Mitigate Climate Change

While the previously discussed issues are important in the short term, our society faces no more pressing threat than climate change. Climate change threatens the very existence of our society. Climate change will exacerbate all the worst problems that face Europe and the rest of the world: more dangerous natural disasters, refugee

¹¹⁵ Jon Hilsenrath, *Global Viral Outbreaks Like Coronavirus, Once Rare, Will Become More Common*, WSJ (Mar. 6, 2020), <https://www.wsj.com/articles/viral-outbreaks-once-rare-become-part-of-the-global-landscape-11583455309> (“Epidemics of infectious diseases have become a regular part of the global landscape in the past quarter-century, thanks in part to economic trends including urbanization, globalization and increased human consumption of animal proteins as society becomes more prosperous, these experts say.”) [<https://perma.cc/4EFP-SXT2>].

¹¹⁶ Natasha Foote, *Working conditions in meat processing plants make them hotbed for COVID-19*, EURACTIV (Jun. 26, 2020), <https://www.euractiv.com/section/agriculture-food/news/working-conditions-in-meat-processing-plants-make-them-hotbed-for-covid-19/> [<https://perma.cc/7P8H-23QA>].

¹¹⁷ See Nicole Narea, *Why meatpacking plants have become coronavirus hot spots*, VOX (May 19, 2020), <https://www.vox.com/2020/5/19/21259000/meat-shortage-meatpacking-plants-coronavirus> (“But [traditional meatpacking] facilities have certain characteristics that could be causing the coronavirus to spread more quickly.”) [<https://perma.cc/PK8T-XAMP>].

¹¹⁸ Stephens et al., *supra* note 5, at 158 (“Another potential benefit is that cultured meat could be less prone to biological risk and disease through standardised production methods, and through tailored production could contribute to improved nutrition, health and wellbeing.”).

¹¹⁹ See Michael Corkery and David Yaffe-Bellany, *U.S. Food Supply Chain Is Strained as Virus Spreads*, N.Y. TIMES (Apr. 13, 2020), <https://www.nytimes.com/2020/04/13/business/coronavirus-food-supply.html> (“Still, the illnesses have the potential to cause shortages lasting weeks for a few products, creating further anxiety for Americans already shaken by how difficult it can be to find high-demand staples like flour and eggs.”) [<https://perma.cc/FU8J-6CSK>].

displacement, sea level rise, drought/desertification, and countless others.¹²⁰ Our current agricultural practices are a driving force behind the acceleration of emissions and climate change.¹²¹ In 2014, farming practices in the United States resulted in more than 570 million tons of carbon dioxide, approximately eight percent of the country's total emissions.¹²² Traditional beef production resulted in almost 50 kilograms of carbon dioxide equivalent per 100 grams of protein, while requiring more than 163 square meters per 100 grams of protein produced.¹²³ Our actions have consequences, and those consequences are coming sooner than we think.

Luckily, LGM products can play a substantial part in curbing the effects of climate change.¹²⁴ While substantive policy changes need to be made in all industries, the agricultural industry can take a meaningful step towards positive change by embracing LGM production and products. LGM products have a significantly lower carbon footprint than their traditional agricultural counterparts.¹²⁵ Compared to the astronomical water requirements of traditional beef, cultured beef products may use as little as four percent of the water necessary to grow a comparable amount for consumption.¹²⁶ Cultured meat production does not contribute to overall greenhouse gas emissions in nearly the same way that traditional meat production does.¹²⁷

¹²⁰ John Podesta, *The climate crisis, migration, and refugees*, BROOKINGS (Jul. 25, 2019), <https://www.brookings.edu/research/the-climate-crisis-migration-and-refugees/> [https://perma.cc/5NT9-UG6D].

¹²¹ Madeleine Turner, *What's in a name? Legislatures labor over lab meat label*, ENVIRONMENTAL HEALTH NEWS (Jul. 1, 2019), <https://www.ehn.org/whats-in-a-name-legislatures-labor-over-lab-meat-label-2638969335.html> [https://perma.cc/SLM3-ZSNH].

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *But see* Sigal Samuel, *Is lab-grown meat actually worse for the environment*, VOX (Feb. 22, 2019), <https://www.vox.com/future-perfect/2019/2/22/18235189/lab-grown-meat-cultured-environment-climate-change> [https://perma.cc/E4NA-S8YB].

¹²⁵ Stephens et al., *supra* note 5, at 157 (“[Researchers] compared cultured meat to conventionally produced beef, sheep, pork and poultry, finding it involves approximately 78–96% less greenhouse gas emissions, 99% less land use, 82–96% less water use, and 7–45% less energy use, depending upon what meat product is it compared to (although poultry uses less energy).”).

¹²⁶ *Id.*

¹²⁷ John Lynch & Raymond Pierrehumbert, *Climate Impacts of Cultured Meat and*

Critics are quick to point out that the agricultural benefits are largely hypothetical and untested.¹²⁸ Critics also point out that the climate benefits from LGM are still unproven and highly debatable.¹²⁹ However, these criticisms miss the central point of the climate debate around LGM products—our current production strategies are definitively unsustainable.¹³⁰ Without change, our planet will continue to get hotter and hotter.¹³¹ With more data on LGM production and its effect on the environment, a more concrete picture will emerge. Until then, it would be premature to dismiss the benefits of LGM products. While more research is needed on these benefits, early results show potential assistance to our unsustainable practices,¹³² and those results should not, and cannot, be ignored if meaningful change is going to take place in this industry.

Part IV: Potential Ramifications of France's Law and Next Steps for LGM Advocates

A. Legal Challenges to LGM Industry Growth

As the intense legal fight spurred by the passage of France's new LGM law shows, lawsuits will be filed at exponential levels as more laws are passed.¹³³ Although legal challenges are already filed against France's efforts to restrict LGM advertising, this fight could

Beef Cattle, FRONTIERS IN SUSTAINABLE FOOD SYS. (Feb. 2019) at 5 (“[T]he two most optimistic cultured meat footprints, cultured-a and cultured-b, are sufficiently small that these systems do indeed have a lesser climate impact than cattle systems. These two cultured meat systems remain superior to even the best beef cattle production system into the very long term (1,000 years), although their relative advantage declines over time . . .”).

¹²⁸ See Emma Newburger, *As the Lab-Grown Meat Industry Grows, Scientists Debate if it Could Exacerbate Climate Change*, CNBC (Oct. 23, 2019), <https://www.cnbc.com/2019/10/19/lab-grown-meat-could-exacerbate-climate-change-scientists-say.html> [https://perma.cc/WD4T-2BDN].

¹²⁹ *Id.*

¹³⁰ James E. McWilliams, Opinion, *The Myth of Sustainable Meat*, N.Y. TIMES (Apr. 12, 2012), <https://www.nytimes.com/2012/04/13/opinion/the-myth-of-sustainable-meat.html> [https://perma.cc/AW3K-LT8D].

¹³¹ Henry Fountain, *Billions Could Live in Extreme Heat Zones Within Decades, Study Finds*, N.Y. TIMES (May 4, 2020), <https://www.nytimes.com/2020/05/04/climate/heat-temperatures-climate-change.html> [https://perma.cc/S8HL-EEX6].

¹³² See Newburger, *supra* note 128.

¹³³ See MO. REV. STAT. § 265.494 (2018).

expand dramatically in the next five years.¹³⁴ After the first restrictive law was passed regulating LGM products in the United States, the legal fight over labelling LGM products spread remarkably quickly.¹³⁵

The legislative and judicial reactions are just beginning to take form at the EU level. In October 2020, the European Parliament voted against a plan to ban language restrictions for plant-based LGM products that was similar to the ban on dairy-specific language.¹³⁶ The European Parliament unequivocally “rejected all proposals to reserve meat-related names for products containing meat.”¹³⁷ Although this will save LGM products temporarily, this rejection is by no means a sweeping victory. Member states, such as France and Germany, are crucial in determining the policy direction of other member states and the EU as a whole.¹³⁸ In light of the United Kingdom’s exit from the EU, French and German hegemony is expected to expand even further.¹³⁹ Court decisions and legislative directives originating from France and Germany are sure to send shockwaves throughout the EU. Although France asserts its new LGM law will not produce a large effect on EU commerce,¹⁴⁰ this claim misunderstands France’s unofficial role in

¹³⁴ Brian Ronholm & Georgia C. Ravitz, *Battle Over Labeling Will Likely Continue Despite Agreement on Cell-Cultured Meat*, LEXOLOGY (Mar. 12, 2019), <https://www.lexology.com/library/detail.aspx?g=57ef2789-bd73-49f1-be40-7dae8aec875d> [<https://perma.cc/SD8L-46GR>].

¹³⁵ Tommy Tobin, *Meat Alternative Label Restrictions Lead to Lawsuits*, FORBES (Jul. 30, 2019), <https://www.forbes.com/sites/tommytobin/2019/07/30/meat-alternative-label-restrictions-lead-to-lawsuits/?sh=5cc475eb7b82> [<https://perma.cc/HJS8-8WW9>].

¹³⁶ Kelsey Piper, *Lobbyists Tried to Ban Labeling Veggie Burgers “Veggie Burgers.” The EU Said No.*, VOX (Oct. 24, 2020), <https://www.vox.com/future-perfect/2020/10/24/21526922/eu-veggie-burger-label-ban> [<https://perma.cc/TR7L-JQ6W>].

¹³⁷ @EP_Agriculture, TWITTER (Oct. 23, 2020, 6:55 AM), https://twitter.com/EP_Agriculture/status/1319593279986565125 [<https://perma.cc/9S8Q-2J5X>].

¹³⁸ Ulrike Esther Franke & Jana Puglierin, *The Big Engine that Might: How France and Germany can Build a Geopolitical Europe*, ECFR (Jul. 14, 2020), https://www.ecfr.eu/publications/summary/the_big_engine_that_might_how_france_and_germany_can_build_a_geopolitical_e [<https://perma.cc/H2K3-XQSS>].

¹³⁹ Ulrich Krotz & Joachim Schild, *France and Germany will Dominate the EU After Brexit – but they won’t go Unchallenged*, LONDON SCH. ECON. & POL. SCI. BLOG (Jan. 30, 2019), <https://blogs.lse.ac.uk/euoppblog/2019/01/30/france-and-germany-will-dominate-the-eu-after-brex-it-but-they-wont-go-unchallenged/> [<https://perma.cc/X7LD-LDZH>].

¹⁴⁰ French LGM Law, *supra* note 12.

pressuring other EU member states to conform policy directives.¹⁴¹ The ECJ likely will be confronted with this issue in the very near future as the EU attempts to bring uniformity to this policy debate.

B. Chilling Effect on the Progress of the LGM industry

The French ban on meat-related names for LGM products left many LGM advocates extremely worried about the future of this industry.¹⁴² If left to stand, this law could kick off a legislative arms race in the name of protecting consumers from confusion. Although consumers do want clear labelling on their grocery products,¹⁴³ this law is not the way to accomplish that narrow goal.¹⁴⁴ The restrictive laws may be extremely burdensome on the LGM industry and can stifle a company's growth opportunity in the short term.¹⁴⁵

France's restrictive measures on the labelling of LGM products will only serve to give these companies and this industry less power over the coming years.¹⁴⁶ Facing greater barriers to market entry, companies will increasingly struggle to gain a larger consumer base

¹⁴¹ See Katy Askew, *France Wants to Tighten 'Transparency' Rules: No 'Meaty' Names for Plant-Based Products and Stricter Origin Labels*, FOODNAVIGATOR (June 18, 2020), <https://www.foodnavigator.com/Article/2020/06/18/France-wants-to-tighten-transparency-rules-No-meaty-names-for-plant-based-products-and-stricter-origin-labels> [https://perma.cc/W22T-PH84] ("This means that food businesses in the future may need to seek out specialized advice to ensure they are compliant with national regulations rather than relying on EU law alone. This could mean 'more restrictions' in the 'increasingly protectionist French market . . . 'It's fair to predict other Member States will follow suit to introduce such restrictions – probably to the detriment of French food.'").

¹⁴² Joint NGO Letter, *supra* note 16.

¹⁴³ Greg Henderson, *Consumers Want "Clear Labels" On Lab-Grown Meat*, PORK BUS. (Jul. 16, 2018), <https://www.porkbusiness.com/news/consumers-want-clear-labels-lab-grown-meat> [https://perma.cc/M8SK-4DMV].

¹⁴⁴ See Trey Malone & Jayson L. Lusk, *Taste Trumps Health and Safety: Incorporating Consumer Perceptions Into a Discrete Choice Experiment for Meat*, J. AG. & APPLIED ECON., Jan. 2017, at 139 (finding that small changes in labelling of "meat" products are unlikely to lead to any significant change in consumer spending habits).

¹⁴⁵ See Letter from Katherine A. Meyer, Animal L. & Pol'y Clinic, Harvard L. Sch., to Paul Kiecker, Administrator, Adm'r, U.S.D.A. (Jun. 9, 2020), <https://www.fsis.usda.gov/wps/wcm/connect/2eaa4e45-be0a-468d-9c0a-169333995475/20-03-hls-06092020.pdf?MOD=AJPERES> ("Overly restrictive labeling requirements for cell-based meat products will likely drive innovation abroad and put [nations] at risk of losing . . . leadership status in the cellular agriculture field.") [https://perma.cc/65BA-3PRJ].

¹⁴⁶ Erin Sutherland, *"Truth in Labeling?" Only if it Hurts the Meat Industry's Plant-Based Competition*, KAN. CITY STAR (Jan. 3, 2020), <https://www.kansascity.com/opinion/readers-opinion/guest-commentary/article238901668.html>.

and grow their product lines. As a result, LGM companies will be unable to compete with the vast resources of traditional livestock producers and seriously challenge traditional livestock's dominance in the marketplace and legislature. France has already been down this road; after the 2017 ECJ decision upholding France's restrictions on soy-based products, traditional dairy producers rejoiced in their tremendous victory in preventing LGM products from being labelled as similar to traditional agricultural products.¹⁴⁷

However, recent studies disagree with the potentially negative impact of these restrictions.¹⁴⁸ Some studies assert that labelling laws are less important to customers than previously thought, concluding that consumers "react more positively to names that focus on origin, flavor and appearance than those that highlight the health benefits and plant-based nature of a dish."¹⁴⁹ Moreover, the ECJ faced criticism over the perceived influence that lobbying played in the decision to uphold the restrictions on dairy labelling.¹⁵⁰ It may very well end up that these legislative efforts will produce only a slight legal barrier to LGM companies gaining prominence on shelves, while having little effect on consumers purchasing habits and exposing the public to the massive secret lobbying campaigns being waged on legislatures.¹⁵¹

C. Next Steps for LGM Advocates in EU Member State Legislatures

Restrictive laws discouraging the production, trade, and growth of the LGM industry are not the only option. Several viable alternatives exist that could adequately protect the public without

¹⁴⁷ See *EU Court Bans Dairy-Style Names for Soya and Tofu*, BBC (Jun. 14, 2017), <https://www.bbc.com/news/business-40274645> [<https://perma.cc/T534-4M3T>].

¹⁴⁸ Flora Southey, *Debate heats up ahead of EU veggie 'burger' vote: 'Oatly doesn't need to put 'milk' on their carton, the consumer understands what it is'*, FOODNAVIGATOR (Oct. 15, 2020), <https://www.foodnavigator.com/Article/2020/10/15/Debate-heats-up-ahead-of-EU-veggie-burger-vote-Oatly-doesn-t-need-to-put-milk-on-their-carton-the-consumer-understands-what-it-i> [<https://perma.cc/TYK5-NWQH>].

¹⁴⁹ Caroline Beret, *Soy Milk vs. E.U. Law: Who's Really Harmed by Labeling Bans?*, MEDIUM (Mar. 22, 2019), <https://medium.com/@animalcharityev/soy-milk-vs-e-u-law-whos-really-harmed-by-labeling-bans-1d8cd05b595c> [<https://perma.cc/H942-DZ7N>].

¹⁵⁰ See *id.*

¹⁵¹ Southey, *supra* note 148 ("Suggesting that the meat and dairy sector perceive this ban as a way to 'ward off the competition' . . . [Meat Director at the consultancy and market research firm Gira, Rupert] Claxton said meat and dairy sectors could be disappointed by the long-term effects of these proposals.").

implicating the negative consequences highlighted above. A plethora of legislative alternatives exist that protect the public without hindering the growth of this industry, such as labelling alternatives, education campaigns, and government-funded subsidies to improve product safety.

First, advocates have offered less restrictive and more consumer-friendly labelling alternatives to outright labelling bans. Advocates stress that terms such as “plant-based burgers” and “cultured-beef burgers” will adequately inform consumers about the products they are purchasing without being overly burdensome on LGM companies.¹⁵² In fact, no widespread evidence exists that consumers have been confused or tricked into purchasing a product that they did not intend to purchase.¹⁵³ Overly burdensome names that seem to imply these products are somehow inferior or “gross” unfairly dissuade consumers from purchasing them, while offering little information to consumers.¹⁵⁴

Second, in the event governments are unwilling to make changes to the labelling requirements for these products, advocates should seek promotional and educational campaigns to raise education and awareness about this industry.¹⁵⁵ If governments truly care about the information gap that consumers face at the supermarket, educational campaigns on the science and benefits of LGM products can help properly educate customers who might want to try these new products. While governments are unlikely to support these programs with much funding, if at all, they have the potential to be a powerful tool in assisting the growth of this industry. While some surveys have indicated the public may potentially be confused,¹⁵⁶ educational campaigns can inform

¹⁵² Sghaier Chriki & Jean-François Hocquette, *The Myth of Cultured Meat: A Review*, FRONT NUTR., Feb. 2020, at 6 (“[T]he name could put off consumers, with possible connotations of a product that is ‘fake.’ Indeed, the lack of consumer acceptance could be a major barrier to the introduction of cultured meat.”).

¹⁵³ See *Innovation in Food Production: Plant-Based Meats*, ALDF (last visited Dec. 16, 2020), <https://aldf.org/article/innovation-in-food-production-plant-based-meats/> [<https://perma.cc/8DWE-XLVL>].

¹⁵⁴ Chriki & Hocquette, *supra* note 152, at 6.

¹⁵⁵ Trey Malone & Brandon McFadden, *Why are meat companies fighting over labels on plant-based foods*, POPULAR SCIENCE (Oct. 14, 2019), <https://www.popsci.com/government-meat-labeling-restrictions/> [<https://perma.cc/43FJ-92RP>].

¹⁵⁶ See National Cattlemen’s Beef Association, *Consumer Research Shows*

consumers, voters, and politicians, leading to more forward-thinking policy directives and legal frameworks.

Finally, advocates should invest in more aggressive lobbying campaigns to promote LGM-friendly legislation at both the member-state and EU-level. Lobbying campaigns have been among the most commonly used and widely successful means employed by anti-LGM groups.¹⁵⁷ The cattle industry and meat producers are increasingly unified in their lobbying platforms against LGM products.¹⁵⁸ In turn, LGM advocates must be unified in favor of these products if they want to be competitive in the legislative battlefield. As a result of some restrictive labelling laws in the United States, advocacy groups have started to form semi-comprehensive platforms and terms that will be employed by producers hoping to gain prominence on supermarket shelves.¹⁵⁹ By utilizing any, or all, of the above strategies, LGM advocates can effectively and efficiently argue for their cause in front of legislatures of all levels and across the globe.

Conclusion

As opined in the early days of the nineteenth century European revolutions, “When France sneezes, Europe catches a cold.”¹⁶⁰ France is currently trending towards a dangerous path of

Widespread Confusion About Contents of Plant-Based Fake Meat, SE AGNET (Feb. 7, 2020), <https://southeastagnet.com/2020/02/07/consumer-research-widespread-confusion-contents-plant-based-fake-meat/> [<https://perma.cc/HW7P-7M83>]; see Anahad O'Connor, *Fake Meat vs. Real Meat*, N.Y. TIMES (Dec. 2, 2020), <https://www.nytimes.com/2019/12/03/well/eat/fake-meat-vs-real-meat.html> (discussing the potential for consumers to be confused about the actual health benefits of lab-grown meat compared to traditional meat proteins) [<https://perma.cc/5VT4-HRFP>].

¹⁵⁷ See *‘Burger’? Impossible: Ranchers Lobby Lawmakers to Agree Only Animal Products can be Called ‘Meat’*: NY TIMES, CNBC (Feb. 10, 2019), <https://www.cnbc.com/2019/02/10/ranchers-lobby-lawmakers-to-agree-only-animal-products-are-meat.html> [<https://perma.cc/BML4-95E6>] (discussing the importance and success of lobbying against lab-grown meat).

¹⁵⁸ See *id.* (“Beef and farming industry groups have persuaded legislators in more than a dozen states to introduce laws that would make it illegal to use the word meat to describe burgers and sausages that are created from plant-based ingredients or are grown in labs . . .”).

¹⁵⁹ See *Plant-Based Meat Labeling Standards Released*, PBFA (Dec. 9, 2019), <https://plantbasedfoods.org/plant-based-meat-labeling-standards-released/> [<https://perma.cc/XJ2F-RE9P>].

¹⁶⁰ Alex Lubin, *Reading America from the Peripheries*, 67 AM. Q. 219, 219 (Mar. 2015).

protectionism, which will undercut the unprecedented growth the LGM sector experienced over the last decade. As one of the most influential members states in the EU, France must change course and support the LGM sector for the good of their economy and our planet. Hopefully, France will either reverse course on its own or be reversed by the European Parliament before the LGM industry is irreparably harmed by restrictive legislation and political pressure to maintain the status quo.

In the absence of such action by France, the global community should advocate for policy directives that can better support and sustain the LGM industry's historic gains. The best directives should focus on less restrictive legislative enactments and more on public education campaigns on the benefits of LGM products. In doing so, the LGM industry can make even greater strides towards market competitiveness and can offer a glimmer of hope in the fight against some of the most dangerous and complex problems throughout the global community.

