VERMONT LAW & GRADUATE SCHOOL
CENTER FOR AGRICULTURE & FOOD SYSTEMS
LABELS UNWRAPPED
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WHAT'S THE BEEF?

DEBATES OVER CELL-CULTURED MEAT

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INTRODUCTION

As cell-cultured or "lab-grown" meat comes closer to hitting grocery store shelves, federal and state regulators are racing to develop a comprehensive regulatory scheme for these products. "Cell-cultured" meat is the technical term for what most people know as "lab-grown" meat. Labeling standards present a central, yet somewhat divisive issue for regulators to resolve. One set of stakeholders, traditional meat producers, are pushing for strict labeling requirements—they want to reserve terms like "meat" for meat made from animals. Supporters of these labeling restrictions argue that consumers are likely to be deceived by words like "burger" on alternative proteins. Alternative protein producers oppose the restrictions, claiming consumers will recognize the difference between the products. Rather, they argue that consumers are more likely to be confused about how to cook and serve the product if alternative protein producers cannot use familiar terms like "sausage" or "burger." Additionally, alternative protein producers allege that laws and regulations restricting the use of such terms violate producers' First Amendment right to free speech.

"Cell-cultured meat" and "lab meat" are two terms for the same thing: muscle tissue that is grown outside of an animal by processing a small sample of an animal's cells. This same product can also be called "cell-cultivated meat," "cultured meat," or "in vitro meat." These products are different from "plant-based" meat alternatives, which are primarily made from plants rather than animals.

In recent years, several states have passed legislation on cell-cultured meat labeling, in the absence of federal regulation. However, the federal government is in the process of establishing comprehensive national standards. In early 2019, the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) agreed that FDA would have jurisdiction over the culturing process while the product is manufactured.[1] USDA would then assume authority once the product is harvested, which includes the power to regulate the food's labeling. In September 2021, USDA published an Advanced Notice of Proposed Rulemaking to solicit public input on how cell-cultured meat products should be labeled.[2]

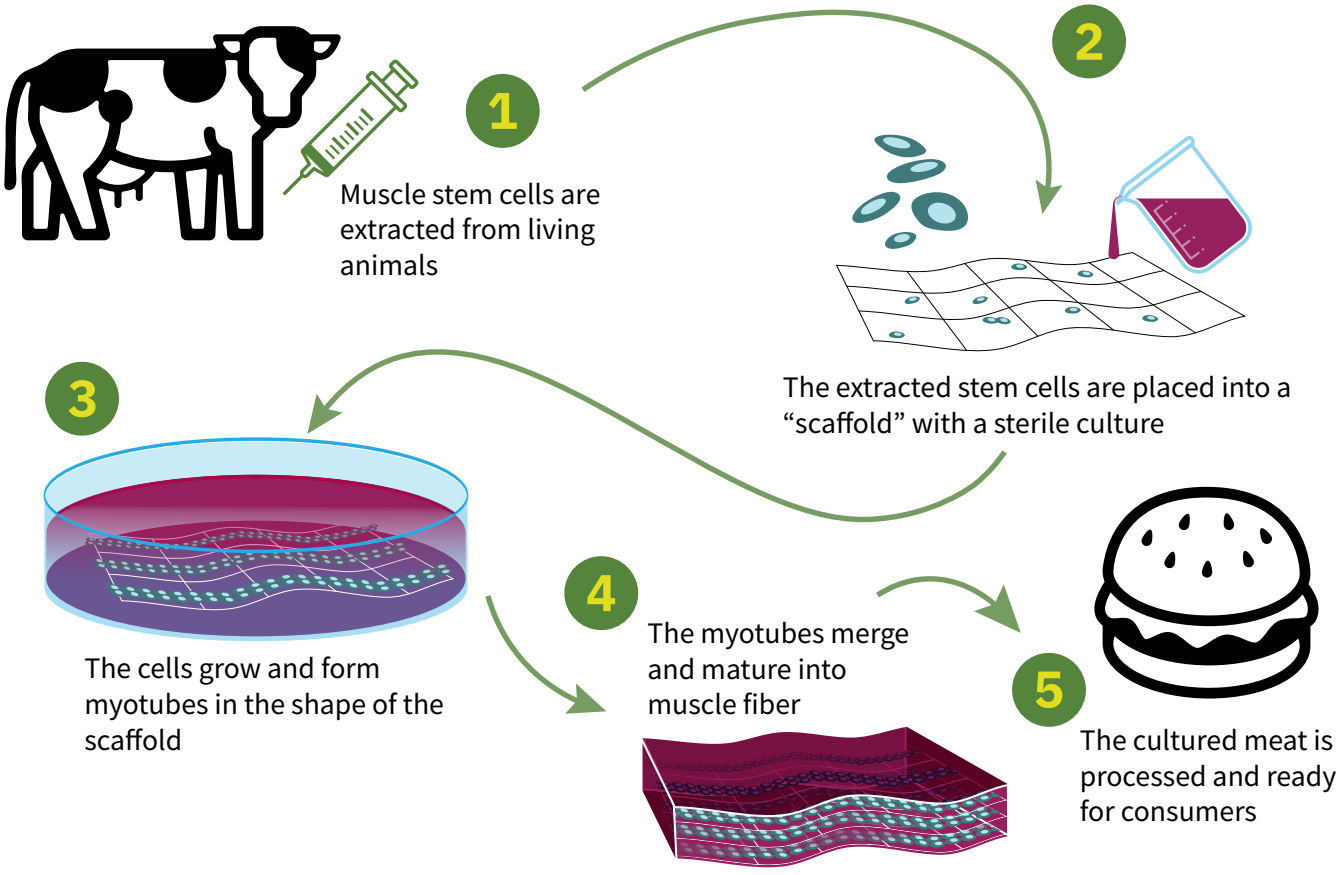
This Labels Unwrapped issue brief examines the recent cell-cultured meat labeling controversy. First, the brief provides general background on the science of cell-cultured meat production, discusses consumer trends and motivations, and introduces key stakeholder perspectives. It then explains the roles of different regulatory bodies, such as state lawmakers, Congress, federal agencies, and courts. Finally, the brief explains some of the major policy issues surrounding cell-cultured meat, such as federal preemption and consumer protection. This issue brief is intended to give consumers a better understanding of how cell-cultured meat products will likely be labeled when they hit the shelves of local grocery stores.

BACKGROUND

In 2013, food critics in London tasted the world's first lab-grown hamburger.[3] Although the burger cost well over $300,000[4] and was not ready to be marketed to consumers, the moment was decades in the making. In 1931, Winston Churchill published a predictive article called ***Fifty Years Hence***.[5] He predicted society would eventually "escape the absurdity" of traditional animal husbandry and instead would grow animal parts "separately under a suitable medium."[6] In 2022, Churchill's prediction may be coming to fruition: lab-grown meat, also known as in-vitro meat or cell-cultured meat, is gaining momentum worldwide.

Cell-cultured meat is grown from animal stem cells.[7] Muscle stem cells, which create new muscle tissue when an animal is injured, are extracted from a living animal and placed onto a "scaffold" in a sterile culture.[8] The cells feed off the culture and grow in the shape of the scaffold. The cells then differentiate and eventually form myotubes, or muscle fiber.[9] Layers of myotubes form muscle, or meat.[10]

Many proponents of cell-cultured meat cite environmental, human health, and animal welfare costs of industrial livestock agriculture as the main drivers behind the innovation.[11] Cell-cultured meat proponents point out that producing meat through traditional raising methods and grazing animals requires far more land and water than it would in a lab or factory.[12] Further, industrial animal agriculture, the primary animal production method in the US, generates pollution in the form of animal waste.[13] Health-conscious consumers may appreciate that cell-cultured meat is produced without antibiotics and can be tailored to have a lower fat content.[14] In addition, some animal welfare advocates argue that cell-cultured meat is far more humane than traditional animal agriculture because it reduces the number of animals that are confined, put in stressful environments, or slaughtered.[15] It remains to be seen whether any of these benefits would be derived from the widespread adoption of cell-cultured meat, as technological substitutes often do not impact the market in a predictable manner.[16]



Uncertainty remains regarding the environmental benefits of cell-cultured meat.[17] One early study estimated that cell-cultured meat will contribute 78–96 percent less greenhouse gas emissions, use 7–45 percent less energy, and consume 82–96 percent less water than traditional animal agriculture.[18] But a follow-up 2015 study predicted that although cell-cultured meat production will use much less land than traditional animal agriculture, it may require substantially more energy.[19] Animals expend a lot of energy to build muscle, so growing meat without the animal may likewise require a large amount of energy.[20] Contributing to the initial energy input, the process requires a sterile environment because the cells are not connected to a functioning immune system, as they would be within a living animal.[21] For example, researchers predicted that cell-cultured meat production will require sterile disposable plastic equipment and additional heat or chemical inputs to sterilize other equipment.[22]

A more recent study used climate modeling to compare the impacts of cell-culture production to contemporary beef production.[23] The study concluded that contemporary beef production contributed significantly more methane than cell-cultured meat, but cell-cultured meat had a higher carbon footprint.[24] Methane has a greater warming effect than carbon, but the warming effect of carbon lasts much longer than methane.[25] Therefore, unless energy is decarbonized, cell-cultured meat may not be better for the climate than traditional beef production in the long term.[26] The researchers did note that cell-cultured meat likely used significantly less land and (depending on production method) contributed less water pollution.[27] Ultimately, according to the study, the impacts of current and increasing beef consumption are incompatible with climate goals, whether that beef is produced through industrial animal agriculture or in cell cultures.[28]

Though the ultimate benefits or risks of a cell-cultured meat market are still speculative, some in the beef industry are concerned about the cell-cultured meat industry's potential growth and have begun preparing for serious market competition. For example, the beef industry is already working to prevent meat analogues[29] from being used on cell-cultured meat labels, arguing that they could deceive or confuse consumers.[30] Producers of meat alternatives, on the other hand, reject the consumer confusion argument and instead claim that the First Amendment protects their labeling choices.[31] While cell-cultured meat is not yet readily available to consumers, both producers and their potential competitors are anxious for a comprehensive regulatory scheme, with labeling concerns at the forefront.

What does *meat analogue* mean?

Meat analogues are words and phrases used on alternative protein packaging that are also commonly associated with animal-based meat. Meat analogues, like *burger*, *roast*, *sausage*, or *bacon*, are familiar terms that tell the consumer about the key qualities of the product like its flavor, texture, and composition. Alternative protein products often use meat analogues to describe how that food has similar qualities to an animal-based product. For example, the term *breakfast sausage* commonly describes a heavily seasoned, savory, link-shaped food that can be cooked on a griddle or frying pan and is often served for breakfast.

LEGAL CONTEXT: WHO SHOULD REGULATE CELL-CULTURED MEAT?

Two groups of stakeholders are driving the debate on whether and how to regulate alternative protein labeling, like cell-cultured meat products. One set of stakeholders—in favor of regulation—includes farmers using traditional animal agriculture to raise animals, trade associations, meat companies, and governments where a significant number of constituents are employed in animal agriculture or meat production. These stakeholders feel wary about allowing cell-cultured meat to be labeled with terms like "meat," citing consumer confusion and the potential economic effect on the meat industry.[32] These stakeholders are proponents of laws that prohibit using terms traditionally associated with animal-based protein on plant-based or cell-cultured products.

On the other side of the debate, stakeholders in competing industries, like producers of plant-based proteins and cell-cultured meat, are arguing against restrictive labeling laws. These alternative protein producers are concerned about the ability to competitively market meat-alternative products without meat analogue terms and descriptors on labels.[33] The producers insist that consumers will not confuse animal-based meat with meat alternatives. Alternative protein producers argue that by prohibiting terms familiar to consumers, like "burger" or "roast," consumers are more confused and may not understand how to cook and serve the food.[34] These alternative protein producers oppose labeling laws that would restrict the use of meat analogues.

The guiding legal principle of food label regulation is the prohibition of misbranding and deception, to ensure transparency and accuracy for consumers.[35] This issue is particularly salient for cell-cultured meat. Fitting cell-cultured meat into the existing legal framework is difficult because meat is regulated to account for the risks that come with slaughtering live animals. Cell-cultured meat is substantially the same product as meat from a slaughtered animal, but cell-cultured meat poses new and different risks. One of the major legal challenges for regulating cell-cultured meat is developing a legal framework that can address the safety risks presented by both products, including how to accurately label each product.

The Federal Regulatory Framework

The Food and Drug Administration (FDA) and the US Department of Agriculture (USDA) are the two primary federal agencies relevant to the labeling, marketing, and sale of cell-cultured products. Within USDA, the Food Safety Inspection Service (FSIS) regulates most meat and poultry products.[36] FDA is responsible for regulating the remainder of food products.[37] After some debate over regulatory responsibility, FDA and USDA announced in 2019 that they would share regulatory authority over cell-cultured products.[38]

Federal authority for regulating food labels is primarily split between USDA and FDA. USDA, through the FSIS, is responsible for regulation and inspection of meat, poultry, and some egg products, under the Federal Meat Inspection Act (FMIA), Poultry Products Inspection Act (PPIA), and Egg Products Inspection Act (EPIA), respectively. Most other foods fall under FDA's authority.[39] FDA is charged with ensuring food safety through the Federal Food, Drug, and Cosmetic Act (FDCA), the Public Health Service Act (PHSA), and the Fair Packaging and Labeling Act (FPLA).[40] Each agency is responsible for preventing misbranding and adulteration.[41]

***Misbranding*, in short, means that a product has false or misleading labeling, is incorrectly labeled as a different product, or is an imitation of another food when the label does not clearly disclose this information.[42]**

***Adulteration* occurs when a food "contains any poisonous or deleterious substance which may render it injurious to health."[43]**

There is substantial regulatory overlap between the agencies. USDA-FSIS has exclusive jurisdiction over certain products and facilities, but FDA regulates several food ingredients that are used in the production of food which may also include meat, poultry, or egg ingredients.[44] For instance, FDA regulates frozen cheese pizza, but FSIS regulates frozen pepperoni pizza depending on the percentage of meat.[45]

Fitting lab-grown meat into this regulatory framework is a complex issue. USDA-FSIS is set up to regulate most meat products. The FMIA, which gives USDA-FSIS the authority to regulate meat, defines "meat food products" in relevant part as:

> **any product capable of use as human food which is made wholly or in part from any meat or other portion of the carcass of any cattle, sheep, swine, or goats, excepting products which ... historically have not been considered by consumers as products of the meat food industry...**[46]

This definition complicates the question of which agency is responsible for cell-cultured meat regulation. Is cell-cultured meat a "meat food product" within the meaning of the definition above? The initial cells needed to grow the meat came from an animal, but not specifically the carcass of the animal, as the cells are harvested from living animals.[47] Nevertheless, the end product of cell-cultured meat is molecularly identical to meat produced by an animal. It may make sense that the two products should be regulated by the same agency because they are nearly the same product.

At the same time, FDA has substantial regulatory authority over manufactured food products, as well as drugs, devices, and cosmetics.[48] For example, FDA issues regulations and provides technical support for food manufacturers to ensure that production methods comply with food safety standards.[49] Cell-cultured meat is manufactured in a lab using processes traditionally under FDA control.[50] Accordingly, FDA may be better suited to ensure cell-cultured meat processes are safe.

Additionally, the technology needed to produce cell-cultured meat may rely on devices under FDA's authority. In fact, FDA has regulated animal cell culturing technologies as "devices" since 1980.[51] The FDCA, which grants FDA regulatory authority, defines "device" as:

> **an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article including any component, part, or accessory which is ... intended to affect the structure or any function of the body of man or other animals which does not achieve its primary intended purposes through chemical action within or on the body of man or other animals ...** [52]

Cell-cultured meat production involves the use of several such devices, including scaffolding, growth media, and bioreactors that create the controlled environment necessary for the cells to multiply.[53] Therefore, FDA may be better able to regulate the safety of the processes and technologies that create cell-based meat. Likely due to the unusual nature of the product, USDA-FSIS and FDA have agreed to share regulatory authority.[54]

FDA and USDA-FSIS Regulatory Agreement

In March 2019, FDA published the ***Formal Agreement Between FDA and USDA Regarding Oversight of Human Food Produced Using Animal Cell Technology Derived from Cell Lines of USDA-amenable Species***.[55] The agreement commits the agencies to developing a "more detailed joint framework or standard operating procedure to facilitate coordination of shared regulatory oversight related to the harvest of biological material."[56] The agreement delegates authority to oversee cell collection and differentiation to FDA, as well as the authority to ensure that facilities

conducting these practices comply with FDA food safety requirements.[57] For meat from animals under the FMIA and PPIA, FSIS will take over responsibility after the harvest of cells.[58] Most fish, seafood, and game meat will stay under FDA jurisdiction.[59] USDA-FSIS will be primarily responsible for the regulation of labels, ensuring the "safety and accurate labeling of human food products derived from the cultured cells of livestock and poultry subject to the FMIA and PPIA."[60] However, the agencies have agreed to "develop joint principles for product labeling and claims to ensure that products are labeled consistently and transparently."[61]

On September 3, 2021, USDA-FSIS published an advance notice of proposed rulemaking (ANPRM), a formal statement from the agency requesting public input.[62] In the ANPRM, the agency requested public input on a potential labeling requirement for cell-cultured meat food products.[63] USDA-FSIS is considering several issues, including whether to establish a standard of identity for cell-cultured meat foods or change the regulatory definition of "meat" to exclude cell-cultured products.[64]

A standard of identity "establish[es] specific names, terms, and information to be used on product labels." For example, the standard of identity for "ham omelet" requires that the food contains "at least 18 percent cooked ham."[65]

The ANPRM was issued partially in response to two petitions for rulemaking: one from the Harvard Animal Law & Policy Clinic and the other from The US Cattlemen's Association.[66] The Harvard petition requested that USDA-FSIS adopt a regulatory approach to cell-cultured meat products that respects First Amendment commercial speech protections.[67] More specifically, the Harvard petition urged the agency to "not ban the use of common or usual meat and poultry terms or product names on cell-based meat products and … only require disclosures when necessary to protect consumers … from an increased food safety risk or material compositional difference."[68] The US Cattlemen's petition requested that USDA-FSIS "limit the definition of beef to product from cattle born, raised, and harvested in the traditional manner, … rather than coming from alternative sources such as a synthetic product from plant, insects, or other non-animal components and any product grown in labs from animal cells."[69]

On September 16, 2021, USDA-FSIS responded to both petitions.[70] The agency cited its ANPRM in response to the petitions, saying, the "petition[s] [are] a topic of discussion in the ANPRM. Comments submitted in response to the ANPRM will expand FSIS' understanding of cell-based products and help inform future rulemaking to establish labeling requirements and will help inform FSIS' approach to the issues [] raised in [the] petition[s]."[71] While USDA-FSIS agreed to move forward on evaluating cell-cultured meat labeling, the agency denied the Cattlemen's petition to add formal definitions for meat products to the FSIS Food Standards and Labeling Policy Book.[72] Adding these definitions would "effectively prohibit the labels of products made using animal cell culture technology … from displaying the terms 'meat' or 'beef.'"[73] Further, the agency denied the Cattlemen's petition to regulate food labeling for all other products mentioned in the petition, including plant-based products. The agency does not have authority over these foods and refers non-animal product labeling issues to FDA.[74]

While there is currently no clear federal agency guidance on cell-cultured meat labeling, the ANPRM and responses to petition indicate that USDA-FSIS is considering rulemaking in the near future. In the meantime, how the agency will address cell-cultured products using terms like "beef" remains unclear.

State Labeling Laws

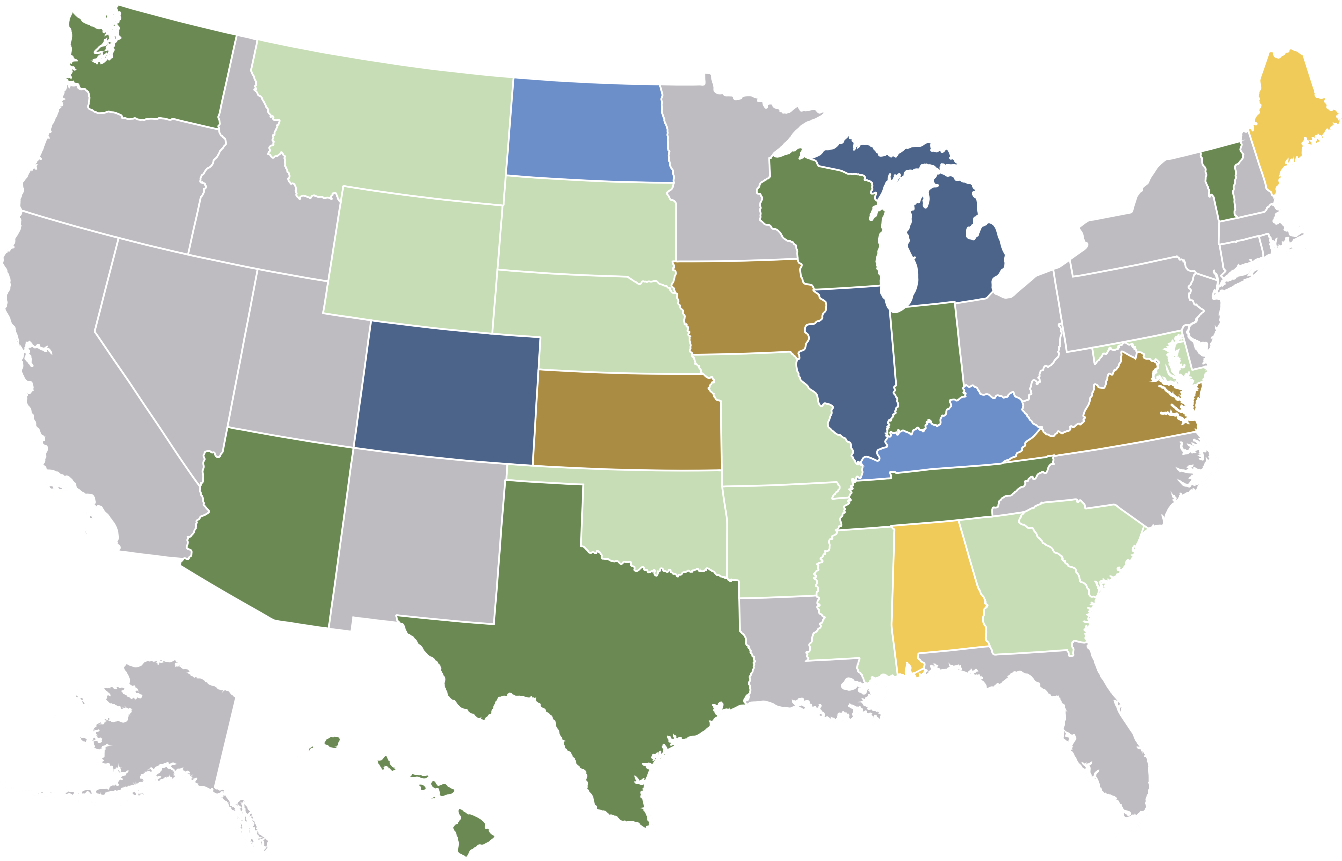
Several states have proactively addressed the issue of whether the term "meat" can be used on a cell-cultured meat product. Missouri was the first state to pass legislation on the issue.[75] In 2018, the state amended its Meat Advertising Law of 1985 to specifically prohibit misrepresentation of meat-like products. The amended section prohibits "misrepresenting a product as meat that is not derived from ***harvested production livestock or poultry***."[76]

The law affects both plant-based meat alternatives and cell-cultured meat.[77] In a 2018 memorandum, Missouri's Department of Agriculture (MDA) acknowledged that the guidance may need to be revisited once cell-cultured meat is on the market.[78] Cell-cultured meat, MDA said, will likely have a greater risk of misrepresentation than plant-based products because "they are expected to have more similarity to products derived from harvested

production livestock or poultry."[79] Accordingly, the MDA stated that it would not prosecute producers where the food's label contains a "prominent statement ... that the product is 'plant-based,' 'veggie,' 'lab-grown,' 'lab-created,' or a comparable qualifier," including "made from plants" or "grown in a lab."[80]

As of May 2022, at least 14 other states have followed Missouri's lead by passing laws amending the statutory definition of "meat" to preclude cell-cultured products from using the term.[81] There is some variation of applicability of the state laws. South Carolina's 2019 law explicitly targets cell-cultured meat, prohibiting the product from being labeled as "meat."[82] This differs from the Missouri law, which affected plant-based alternatives as well.[83] Washington State may take the most aggressive stance on cell-cultured meat. In January 2019, Representatives Matt Shea (R), Bob McCaslin (R), Brian Blake (D), and Bruce Chandler (R) introduced the Natural Meat Protection Act to the House.[84] If passed, the act would prohibit the advertising and sale of cell-cultured products.[85] Other states have embraced alternative protein development. Minnesota, for example, introduced a bill that would allocate two million dollars for "research and development projects to accelerate the scaleup and commercialization of industry-advancing plant-based food products."[86]

Map of Alternative Protein Restrictions by State, as of August 2021



Type and Status of Restriction

- Enacted (Plant-based & Cell-cultured)
- Enacted (Plant-based)
- Enacted (Cell-cultured)
- None
- Proposed (Plant-based & Cell-cultured)
- Proposed (Plant-based)
- Proposed (Cell-cultured)

*Map excludes restrictions to alternative dairy products
*Louisiana had a restriction enacted but was recently held as unconstitutional

POLICY ISSUES

Conflicts arise where both the states and the federal government seek to regulate meat labeling. The federal government has well-established statutes and regulations for national uniform meat labeling, inspections, and safety.[87] These laws often preempt state laws to ensure uniform food safety standards throughout the country. However, states have a long history of regulating consumer protection, including prosecuting false and misleading labeling.[88] This tension results in two primary policy concerns: (1) do states have the authority to regulate cell-cultured meat; and (2) how should regulators, whether state or federal, prevent consumer confusion around cell-cultured meat labeling?

Federal Preemption

Federal preemption is a legislative tool that prevents individual states from regulating topics under exclusive federal control. Federal statutes may expressly preempt state laws dealing with inherently national issues or topics that require national uniformity, such as immigration,[89] airline and flight regulation,[90] and ocean fishing.[91] USDA-FSIS and FDA have committed to developing national principles for consistent and transparent labeling.[92] The federal government has exclusive jurisdiction over many aspects of meat production through the Federal Meat Inspection Act (FMIA).[93] The FMIA contains a provision to explicitly preempt state labeling standards.[94] The provision reads:

> **Marking, labeling, packaging, or ingredient requirements in addition to, or different than, those made under this chapter may not be imposed by any State or Territory or the District of Columbia with respect to articles prepared at any establishment under inspection in accordance with the requirements under [the inspection requirements, adulteration, and misbranding] chapter.[95]**

National Meat Association v. Harris is one of the most influential cases dealing with state meat regulations. The case addresses a California law enacted after an investigation revealed that slaughterhouse workers were attempting to move non-ambulatory cattle by "dragging, kicking, and electro-shocking [the] sick and disabled cows."[96] The California law imposed additional requirements to those in the FMIA, such as preventing slaughterhouses from purchasing non-ambulatory cattle, prohibiting slaughterhouses from selling meat from non-ambulatory cattle, and requiring slaughterhouses to immediately euthanize any non-ambulatory animals they receive.[97]

In ***National Meat Association v. Harris***,[98] the Supreme Court upheld the FMIA's preemption clause, interpreting the clause broadly.[99] The court held that the FMIA preempted the state law because the FMIA's preemption clause "change to '"sweeps widely ... precluding States from imposing requirements that are 'within the scope' of the FMIA."[100] The court also reasoned that animal type (ambulatory or non-ambulatory) was within the scope of FMIA's regulation.[101] Accordingly, the court held that the California law imposed additional requirements on slaughterhouses that were within the scope of the FMIA, which is not permitted due to the broad preemption provision in the FMIA.[102]

However, in the absence of existing comprehensive national standards, several states have proactively enacted meat-labeling standards.[103] As discussed above, cell-culture facilities will be inspected by FDA, not USDA-FSIS under the FMIA. However, USDA-FSIS and FDA will collaborate on the regulation of this product. It is unclear whether a preemption challenge will stand, but one is almost certain to be brought. ***National Meat Association*** may indicate a court's likelihood to rule in favor of federal authority in this arena.

Consumer Protection

State and federal lawmakers work to balance the interests of the consumer and producer. Industries often rely on governments to regulate certain aspects of the consumer market.[104] In the case of cell-cultured meat, the United States Cattlemen's Association is advocating for federal action, in the hopes that the federal government will enforce strict standards with regards to the term "meat" or meat analogues on labels.[105]

However, alternative protein producers argue that any state or federal law prohibiting them from using meat analogues to describe their product is unconstitutional, and the labeling restrictions are just pretense to protect traditional animal-based meat producers. Alternative protein stakeholders are already in litigation against state labeling standards, claiming First Amendment violations. The American Civil Liberties Union (ACLU), alongside Tofurky, the Good Food Institute, and the Animal Legal Defense Fund, have brought suit against Arkansas over Act 501, which prevents plant- or cell-based meat alternatives from bearing names like "meat," "roast," or "sausage."[106]

Following the Missouri amendment discussed above, which prohibits food producers from "misrepresenting a product as meat that is not derived from harvested production livestock or poultry,"[107] the Good Food Institute and Tofurky sued the state seeking a preliminary injunction—a court order that temporarily prevents the state from enforcing the new labeling restrictions while the case is being argued. The plaintiffs, led by the Missouri ACLU, allege that the statute violates plaintiff's First Amendment rights and the Dormant Commerce Clause.[108] The court did not issue the preliminary injunction, and this decision was upheld by the Eighth Circuit in March 2021. Neither court has issued a decision on the constitutional issues, effectively allowing Missouri to enforce its meat labeling law.[109]

Going forward, there will be a lot of controversy, and likely a lot of litigation, around the topic of labeling cell-cultured meat. Congress may attempt to settle these disputes through legislation. But with federal legislation, federal agencies like USDA and FDA will play a bigger role in how the nation regulates cell-cultured meat. Similarly, states may continue trying to reserve labeling and marketing control over the meat sold in their state, for consumers and to protect their agricultural sector. Additionally, as with any legislation, the courts are empowered to interpret whether the law is constitutionally sound. It remains unsettled how the government will address alternative protein labeling issues; the issue can potentially be resolved through federal legislation, state legislation, agency regulation, through the courts, or some combination of government acts.

CONCLUSION

As cell-cultured meat gets closer to market, decision-makers will inevitably need to balance conflicting interests. Emerging technologies like cell-cultured meat do not cleanly fit into existing regulatory frameworks. At the federal level, agencies are attempting to decide which agencies have jurisdiction over cell-cultured meat and at what points in the production process. States are considering how new technologies will shape their economies, especially in places where animal agriculture is a significant industry. States are also attempting to preserve authority over consumer protection in light of strong preemption precedent from the Supreme Court.

Producers and consumers both have a lot on the line in the labeling debate. Animal-based meat producers argue they are unfairly being forced to compete against other producers that use similar terms, despite marketing different products, and that consumers may not be able to tell what they are choosing to eat. Cell-cultured meat producers argue that prohibiting them from using accurate language unfairly disadvantages them and misleads consumers. Whether cell-cultured meat is regulated at the federal or state level, and whether their burger is from a lab or a cow, consumers should know where their food comes from. Without clear and honest labeling, consumers cannot make informed decisions about the food they purchase and consume.

Cell-cultured meat is just one example of many in novel labeling issues. States are increasingly introducing legislation that also prevents plant-based protein producers from using meat analogues in their packaging. The labeling debate brings to light other broader questions about innovation and technology in food production. Will this innovative technology solve ethical, environmental, and human health concerns about traditional meat production? Or will lab-grown meat be the next margarine: another instance where the "development of substitutes for a particular resource does not always lead to reductions of use of that resource"?[110] Without acknowledging the unpredictable nature of complex systems, societies and economies included, new technologies rarely result in their intended consequences.

About the Center for Agriculture and Food Systems at Vermont Law and Graduate School

Vermont Law and Graduate School's Center for Agriculture and Food Systems (CAFS) uses law and policy to build a more sustainable and just food system. In partnership with local, regional, national, and international partners, CAFS addresses food system challenges related to food justice, food security, farmland access, animal welfare, worker protections, the environment, and public health, among others. CAFS works closely with its partners to provide legal services that respond to their needs and develop resources that empower the communities they serve. Through CAFS' Food and Agriculture Clinic and Research Assistant program, students work directly on projects alongside partners nationwide, engaging in innovative work that spans the food system.

For more information visit the Labels Unwrapped website at http://labelsunwrapped.org/

Table is adapted from: Joshua Pitkoff, State Bans on Labeling for Alternative Meat Products: Free Speech and Consumer Protection, 29 N.Y.U. Envtl. L.J. 297 (2021).

STATE	CITATION	STATUS	RELEVANT TEXT
Alabama	ALA. CODE § 2-17-10 (2019)	Enacted	(d) A food product that contains cultured animal tissue produced from animal cell cultures outside of the organism from which it is derived may not be labeled as meat or a meat food product.
Arizona	H.B. 2044, 54th Leg., 2d Reg. Sess. (Ariz. 2020).	Proposed	A. A person may not misrepresent a product that is not derived from harvested production livestock as meat or a meat food product. B. For the purposes of this section, "misrepresent" means to use any untrue, misleading or deceptive oral or written statement, advertisement, label, display, picture, illustration or sample. A. A person shall not: 12. Misrepresent a product that is not derived from harvested production poultry as a poultry product. For the purposes of this paragraph, "misrepresent" means to use any untrue, misleading or deceptive oral or written statement, advertisement, label, display, picture, illustration or sample.
Arkansas	ARK. CODE ANN. §2-1-301 (2019).	Enacted	The purpose of this subchapter is to protect consumers from being misled or confused by false or misleading labeling of agricultural products that are edible by humans.
Arkansas	ARK. CODE ANN. § 2-1-302 (2019).	Enacted	Definitions. As used in this subchapter: (2) "Beef" means the flesh of a domesticated bovine, such as a steer or cow, that is edible by humans; (3) "Beef product" means an agricultural product that is edible by humans and produced in whole or in part from beef, including without limitation beef jerky, beef patties, chopped beef, fabricated steak, hamburger, ground beef, ribs, and roast; (7) (A) "Meat" means a portion of livestock, poultry, or cervid carcass that is edible by humans. (B) "Meat" does not include a: (i) Synthetic product derived from a plant, insect, or other source; or (ii) Product grown in a laboratory from animal cells; (8) "Meat product" means an agricultural product that is edible by humans and made wholly or in part from meat or another portion of a livestock, poultry, or cervid carcass (12) "Pork" means the flesh of a domesticated swine that is edible by humans; (13) "Pork product" means an agricultural product that is edible by humans and produced in whole or in part from pork, including without limitation bacon, bratwurst, ground pork, ham, pork chops, ribs, roast, and sausage; (14) "Poultry" means domestic birds that are edible by humans

STATE	CITATION	STATUS	RELEVANT TEXT
Arkansas	ARK. CODE ANN. § 2-1-305 (2019).	Enacted	A person shall not misbrand or misrepresent an agricultural product that is edible by humans, including without limitation by (6) Representing the agricultural product as meat or a meat product when the agricultural product is not derived from harvested livestock, poultry, or cervids; (7) Representing the agricultural product as rice when the agricultural product is not rice; (8) Representing the agricultural product as beef or a beef product when the agricultural product is not derived from a domesticated bovine; (9) Representing the agricultural product as pork or a pork product when the agricultural product is not derived from a domesticated swine; (10) Utilizing a term that is the same as or similar to a term that has been used or defined historically in reference to a specific agricultural product.
Colorado	H.B. 19-1102, 72nd Gen. Assemb., 1st Reg. Sess. (Colo. 2019).	Proposed	The bill states that food is misbranded as "meat" or a cut of meat if it does not come from animals and that lab-grown meat is misbranded as "meat" or a cut of meat unless these terms are not modified by "lab-grown" or "artificially cultured".
Georgia	GA. CODE ANN. § 26-2-152 (2020).	Enacted	(c)(1)(B)(2) It shall be unlawful for any person, to label, advertise, or otherwise represent any food produced or sold in this state as meat or any product from an animal unless each product is clearly labeled by displaying the following terms prominently and conspicuously on the front of the package, labeling cell cultured products with "lab-grown," "lab-created," or "grown in a lab" and plant based products as "vegetarian," "veggie," "vegan," "plant based," or other similar term indicating that the product is plant based and does not include the flesh, offal, or other by-product of any part of the carcass of a live animal that has been slaughtered.
Hawaii	S.B. 1425, 30th Leg., Reg. Sess. (Haw. 2019).	Proposed	§141- Prohibited practices; required disclosures. (a) No person who advertises, offers for sale, or sells all or part of a carcass shall engage in any misleading or deceptive practices, including but not limited to: (7) Misrepresenting the cut, grade, brand or trade name, or weight or measure of any product, or misrepresenting a product as meat that is not derived from harvested production livestock or poultry;

STATE	CITATION	STATUS	RELEVANT TEXT
Illinois	H.B. 2556, 101st Gen. Assemb., Reg. Sess. (Ill. 2019).	Proposed	Amends the Meat and Poultry Inspection Act. Provides that a carcass, part thereof, meat or meat food product, or poultry or poultry food product is misbranded if it purports to be or is represented as a meat or meat food product or poultry or poultry product but is a cell-cultured food product. Defines "cell-cultured food product". Amends the Illinois Food, Drug and Cosmetic Act. Provides that a food is misbranded if it purports to be or is represented as a meat or meat food product or poultry or poultry product but is a cell-cultured food product as defined in the Meat and Poultry Inspection Act.
Indiana	H.B. 1414, 121st Gen. Assemb., 1st Reg. Sess. (Ind. 2019).	Proposed	A food product is misbranded for purposes of the animal products law, and may not be sold or offered for sale, if: (1) the product is not derived from harvested livestock or poultry but the labeling of the product states or implies that the product is a meat product or poultry product; or (2) the product consists partially or entirely of tissue cultured in vitro from animal cells and the labeling of the product does not clearly state that the product contains tissue cultured in vitro from animal cells.
Iowa	S.F. 299, 88th Leg., Reg. Sess. (Iowa 2019).	Proposed	1. A food product vendor shall not advertise for sale or sell a food product by using the term "meat" including any variation of that term, unless such food product derives from an animal's muscle tissue, fat, gland, or organ. 2. The department may exempt from the provisions of subsection 1 any advertising for sale or the selling of a food product if the department determines that the advertisement would not mislead a reasonable consumer purchasing the food product on a retail basis. 3. Subsection 1 does not apply to advertising for sale or selling a food product by describing the food product as comparable to meat or as a substitute to meat. However, such a description must be presented in a manner that would not mislead a reasonable consumer purchasing the food product on a retail basis. 4. Subsection 1 does not apply if a food product vendor could not have reasonably known that a food product as advertised did not derive from an animal's muscle tissue, fat, gland, or organ.

STATE	CITATION	STATUS	RELEVANT TEXT
Kansas	H.B. 2437, 2020 Leg., Reg. Sess. (Kan. 2020).	Proposed	(ee) "Meat analog" means any food that approximates the aesthetic qualities, primarily texture, flavor and appearance, or the chemical characteristics of any specific type of meat, meat food product, poultry product or poultry food product, but does not contain any meat, meat food product, poultry product or poultry food product. (ff) "Identifiable meat term" includes, but is not limited to, terms such as meat, beef, pork, poultry, chicken, turkey, lamb, goat, jerky, steak, hamburger, burger, ribs, roast, bacon, bratwurst, hot dog, ham, sausage, tenderloin, wings, breast and other terms for food that contain any meat, meat food product, poultry product or poultry food product. [. . .] (m) If it is a meat analog and: (1) Its labeling utilizes an identifiable HB 2204 7 meat term; and (2) the labeling does not have a disclaimer in the same font, style and size, immediately before or after the identifiable meat term, stating one of the following: (A) "This product does not contain meat"; (B) "meatless"; or (C) "meat-free." The provisions of this subsection shall not apply to a menu or menu board or to food that can be defined as "imitation" under subsection (c) and is in compliance with the provisions of such subsection.
Kansas	H.B. 2204, 2021 Leg. Reg. Sess. (Kan. 2021)	Proposed	(ee) "Meat analog" means any food that approximates the aesthetic qualities, primarily texture, flavor and appearance, or the chemical characteristics of any specific type of meat, meat food product, poultry product or poultry food product, but does not contain any meat, meat food product, poultry product or poultry food product. (ff) "Identifiable meat term" includes, but is not limited to, terms such as meat, beef, pork, poultry, chicken, turkey, lamb, goat, jerky, steak, hamburger, burger, ribs, roast, bacon, bratwurst, hot dog, ham, sausage, tenderloin, wings, breast and other terms for food that contain any meat, meat food product, poultry product or poultry food product. [. . .] (m) If it is a meat analog and: (1) Its labeling utilizes an identifiable HB 2204 7 meat term; and (2) the labeling does not have a disclaimer in the same font, style and size, immediately before or after the identifiable meat term, stating one of the following: (A) "This product does not contain meat"; (B) "meatless"; or (C) "meat-free." The provisions of this subsection shall not apply to a menu or menu board or to food that can be defined as "imitation" under subsection (c) and is in compliance with the provisions of such subsection.
Kentucky	KY. REV. STAT. ANN. § 217.035 (LexisNexis 2019).	Enacted	A food shall be deemed to be misbranded. (15) If it purports to be or is represented as meat or a meat product and it contains any cultured animal tissue produced from in vitro animal cell cultures outside of the organism from which it is derived.
Louisiana	LA. STAT. ANN. § 3:4742 (2019).	Enacted	The purpose of this Part is to protect consumers from misleading and false labeling of food products that are edible by humans.

STATE	CITATION	STATUS	RELEVANT TEXT
Louisiana	LA. STAT. ANN. § 3:4743 (2019).	Enacted	(2) "Beef" means the flesh of a domesticated bovine that is edible by humans. (3) "Beef product" means a type of agricultural product that is edible by humans and produced in whole or in part from beef, including beef jerky, beef patties, chopped beef, fabricated steak, hamburger, ground beef, ribs, and roast. (10) "Meat" means a portion of a beef, pork, poultry, alligator, farm-raised deer, turtle, domestic rabbit, crawfish, or shrimp carcass that is edible by humans but does not include a: (a) Synthetic product derived from a plant, insect, or other source. (b) Cell cultured food product grown in a laboratory from animal cells. (11) "Meat product" means a type of agricultural product that is edible by humans and made wholly or in part from meat or another portion of a beef, pork, poultry, alligator, farm-raised deer, turtle, domestic rabbit, crawfish, or shrimp carcass. (15) "Pork" means the flesh of a domesticated swine that is edible by humans. (16) "Pork product" means a type of agricultural product that is edible by humans and produced in whole or in part from pork, including bacon, brat-wurst, ground pork, ham, pork chops, ribs, roast, and sausage. (17) "Poultry" means domesticated birds that are edible by humans.
Louisiana	LA. STAT. ANN. § 3:4744 (2019).	Enacted	B. No person shall intentionally misbrand or misrepresent any food product as an agricultural product through any activity including (4) Representing a food product as meat or a meat product when the food product is not derived from a harvested beef, pork, poultry, alligator, farm-raised deer, turtle, domestic rabbit, crawfish, or shrimp carcass. (5) Representing a food product as rice when the food product is not rice. (6) Representing a food product as beef or a beef product when the food product is not derived from a domesticated bovine. (7) Representing a food product as pork or a pork product when the food product is not derived from a domesticated swine. (8) Representing a food product as poultry when the food product is not derived from domesticated birds. (11) Representing a cell cultured food product as a meat product. (12) Representing a food product as sugar when it is not an unaltered plant-based simple sugar or sucrose.

STATE	CITATION	STATUS	RELEVANT TEXT
Maine	ME. STAT. tit. 22 § 2511	Enacted	28. Meat food product or meat product. "Meat food product" or "meat product" means a product useable as human food that is made wholly or in part from any meat or other portion of a carcass of cattle, domesticated deer, sheep, swine, domestic rabbits or goats, excepting products that are exempted from definition as a meat food product by the commissioner under conditions that the commissioner may prescribe to ensure that the meat or other portions of carcass contained in products are unadulterated and that products are not represented as meat food products. This term, as applied to food products of equines or other designated animals, has a meaning comparable to that provided in this subsection with respect to cattle, domesticated deer, sheep, swine, domestic rabbits and goats.
Maryland	S.B. 188, 2020 Leg., 441st Sess. (Md. 2020).	Proposed	For the purpose of providing that a food is misbranded if it is offered for sale in the State with a label that identifies the product as a meat or a meat product and the product contains animal tissue cultured from animal cells outside the animal from which the tissue is derived or is made from plants or insects; and generally relating to misbranded food.
Michigan	H.B. 4947, 100th Leg., Reg. Sess. (Mich. 2019).	Proposed	A person shall not label or identify as meat a laboratory-grown meat substitute.
Michigan	H.B. 4982, 101st Leg. Reg. Sess. (Mich. 2021)	Proposed	(6) A person shall not label or identify as meat a laboratory-grown meat substitute.
Mississippi	MISS. CODE ANN. § 75-35-3 (2019)	Enacted	(g) The term "meat food product" means any product capable of use as human food which is made wholly or in part from any meat or other portion of the carcass of any cattle, sheep, swine, or goats [ ]
Mississippi	MISS. CODE ANN. § 75-35-15 (2019)	Enacted	A food product that contains cultured animal tissue produced from animal cell cultures outside of the organism from which it is derived shall not be labeled as meat or a meat food product. A plant-based or insect-based food product shall not be labeled as meat or a meat food product.
Missouri	MO. ANN. STAT. § 265.494 (West 2020).	Enacted	No person advertising, offering for sale or selling all or part of a carcass or food plan shall engage in any misleading or deceptive practices, including, but not limited to, any one or more of the following (7) [M]isrepresenting a product as meat that is not derived from harvested production livestock or poultry.

STATE	CITATION	STATUS	RELEVANT TEXT
Montana	MONT. CODE ANN. § 50-31-103 (2019).	Enacted	(4) "Cell-cultured edible product" means the concept of meat, including but not limited to muscle cells, fat cells, connective tissue, blood, and other components produced via cell culture, rather than from a whole slaughtered animal. A cell-cultured edible product derived from meat muscle cells, fat cells, connective tissue, blood, or other meat components must contain labeling indicating it is derived from those cells, tissues, blood, or components. (19) "Hamburger" or "ground beef" includes only products entirely derived from the edible flesh of livestock or a livestock product, as meat is defined in 81-9-217. The term does not include cell-cultured edible products.
Montana	MONT. CODE ANN. § 50-31-203 (2019).	Enacted	A food is considered to be misbranded if: [ ] (14) it is a cell-cultured edible product labeled as meat but does not meet the definition of meat in 81-9-217. A cell-cultured edible product derived from meat muscle cells, fat cells, connective tissue, blood, or other meat components is not considered to be misbranded if it is labeled in accordance with 50-31-103 to indicate it is derived from those cells, tissues, blood, or components.
Montana	MONT. CODE ANN. § 81-9-217 (2019).	Enacted	(7) "Meat" means the edible flesh of livestock or poultry and includes livestock and poultry products. This term does not include cell-cultured edible products as defined in this section. (8) "Misbranded" means the term applied to meat (c) if it is not entirely derived from the edible flesh of livestock or poultry or livestock and poultry products. A cell-cultured edible product derived from meat muscle cells, fat cells, connective tissue, blood, or other meat components is not considered to be misbranded if it is labeled in accordance with 50-31-103 to indicate it is derived from those cells, tissues, blood, or components.
Nebraska	L.B. 594, 106th Leg., 1st Sess. (Neb. 2019).	Proposed	Amends the Uniform Deceptive Trade Practices Act to declare a deceptive trade practice to misrepresent a food product as "meat" that is derived from sources other than livestock. Section 1 of amends [the Act] by inserting a new subsection adding "meat" as a defined term for purposes of the Uniform Deceptive Trade Practices Act. Section 2 amends [the act] which lists specific acts that are a deceptive trade practice. [This bill] inserts a new subdivision (a) (23) declaring it a deceptive practice to advertise, label or otherwise misrepresent insect or plant based, or lab-grown, food products as meat.
North Dakota	N.D. CENT. CODE § 4.1-31-05.1 (2019).	Enacted	1. A person may not advertise, offer for sale, sell, or misrepresent cell-cultured protein as a meat food product. A cell-cultured protein product: a. May not be packaged in the same, or deceptively similar, packaging as a meat food product; and b. Must be labeled as a cell-cultured protein food product. 2. For purposes of this section, "deceptively similar" means packaging that could mislead a reasonable person to believe the product is a meat food product.

STATE	CITATION	STATUS	RELEVANT TEXT
Oklahoma	OKLA. STAT. ANN. tit. 63, § 317 (2019). (Repealed and replaced by H.B. 3806, 57th Leg., 2d Sess. (Okla. 2020)).	Enacted	No person advertising, offering for sale or selling all or part of a carcass or food plan shall engage in any misleading or deceptive practices, including, 7. Misrepresenting a product as meat that is not derived from harvested production livestock or poultry; provided product packaging for plant-based items shall not be considered to be in violation of the provisions of this paragraph so long as the packaging displays that the product is derived from plant-based sources.
Oklahoma	OKLA. STAT. ANN. tit. 2, § 5-107 (2020).	Enacted	[P]roduct packaging for plant-based items shall not be considered in violation of the provisions of this paragraph so long as the packaging displays that the product is derived from plant-based sources in type that is uniform in size and prominence to the name of the product.
South Carolina	S.C. CODE ANN. § 47-17-510 (2019).	Enacted	A person who advertises, offers for sale, or sells all or part of a carcass shall not engage in any misleading or deceptive practices, labeling, or misrepresenting a product as "meat" or "clean meat" that is cell-cultured meat/protein, or is not derived from harvested production livestock, poultry, fish, or crustaceans.
South Dakota	S.D. CODIFIED LAWS § 39-5-6 (2019).	Enacted	(13) "Meat," the edible part of the muscle of cattle, bison, sheep, swine, goats, equine, ratites, captive cervidae, and other species as requested by the owner and authorized by the secretary, which is skeletal or which is found in the tongue, in the diaphragm, in the heart, or in the esophagus, with or without the accompanying and overlying fat, and the portions of bone, skin, sinew, nerve, and blood vessels which normally accompany the muscle tissue and which are not separated from it in the process of dressing. It does not include the muscle found in the lips, snout, or ears (16) "Meat food products," any product capable of use as human food which is made wholly or in part from any meat or other portion of the carcass of any cattle, bison, sheep, swine, goats, equine, ratites, captive cervidae, and other species as requested by the owner and authorized by the secretary, excepting products which contain meat or other portions of such carcasses only in a relatively small proportion or historically have not been considered by consumers as products of the meat food industry, and which are exempted from definition as a meat food product by regulations promulgated by the secretary pursuant to chapter 1-26, under such conditions as the secretary may deem appropriate to effectuate the purposes of this chapter.
Tennessee	S.B. 304, 111th Gen. Assemb., 1st Sess. (Tenn. 2019).	Proposed	Tennessee Code Annotated, Section 53-7-206, is amended by adding the following as a new subdivision: (18) Misrepresenting as meat or poultry a product or product ingredient that does not consist entirely of tissue removed from the carcass of slaughtered livestock or poultry.

STATE	CITATION	STATUS	RELEVANT TEXT
Texas	H.B. 3799, 86th Leg., Reg. Sess. (Tex. 2019).	Proposed	(2) "Beef" means any edible portion of a formerly live and whole cattle carcass, not derived by synthetic or artificial means. (3) "Chicken" means any edible portion of a formerly live and whole poultry carcass, not derived by synthetic or artificial means. (8) "Meat" means any edible portion of a livestock carcass that does not contain lab-grown, cell cultured, insect, or plant-based food products. Sec. 433A.0003. MISBRANDED FOOD. A food advertised or labeled as containing or imitating meat shall be considered misbranded if: 3) any portion of the food's advertising or labeling suggests or implies that the food imitates meat, beef, chicken, or pork when the food does not; (4) the food includes a label stating "meat," "beef," "chicken," "pork," or any common variation of those terms, if the food does not contain the products listed on the label; and (5) the food's label includes a claim comparing the food's nutritional value to that of meat without disclosing the human benefit of the food. Sec. 433A.0004. DETERMINATION OF MISLEADING LABELING OR ADVERTISING. If a food is alleged to be misbranded because the labeling or advertising is misleading, the department in determining whether the labeling or advertising is misleading shall consider, among other characteristics: (1) a representation made or suggested by a statement, word, design, device, sound, or any combination of these; and (2) the extent to which the labeling or advertising suggests the food is: (A) authentic meat; (B) a meat product; or (C) derived from livestock in any form.

STATE	CITATION	STATUS	RELEVANT TEXT
Texas	H.B. 242, 87th Leg., Reg. Sess. (Tex. 2021).	Proposed	(1-a) "Analogue product" means a food product derived by combining processed plant products, insects, or fungus with additives to approximate the texture, flavor, appearance, or other aesthetic qualities or the chemical characteristics of any specific type of meat, meat food product, poultry, or poultry product. (1-c) "Beef" means any edible portion of a formerly live and whole cattle carcass. The term includes any commonly understood variation or abbreviation of the term. The term does not include a cell-cultured, plant-based, or insect-based food product. (2-a) "Cell-cultured product" means a food product derived by engineering muscle tissue fibers from animal cells in a laboratory or similar setting. (19-a) "Pork" means any edible portion of a formerly live and whole swine carcass. The term includes any commonly understood variation or abbreviation of the term. The term does not include a cell-cultured, plant-based, or insect-based food product. (a) A livestock,or poultry product, analogue product, or cell-cultured product is misbranded if: (13) for an analogue product of meat, a meat food product, poultry, or a poultry product, its label does not bear in prominent type of uniform size immediately before the name of the product any of the following terms: (A) "analogue"; (B) "meatless"; (C) "plant-based"; (D) "made from plants"; or (E) a similar qualifying term or disclaimer intended to clearly communicate to a consumer the contents of the product; or (14) for a cell-cultured product, its label does not bear in prominent type of uniform size immediately before the name of the product any of the following terms: (A) "cell-cultured"; or (B) "lab-grown". (d) If a food is alleged to be misbranded because the labeling or advertising is misleading, the department in determining whether the labeling or advertising is misleading shall consider, among other characteristics: (1) a representation made or suggested by a statement, word, design, image, device, sound, or any combination of these; and (2) the extent to which the labeling or advertising suggests the food is: (A) authentic meat or poultry if the food is not meat or poultry; (B) a meat product or poultry product if the food is not a meat product or poultry product; or (C) derived from livestock in any form if the food is not derived from livestock.

STATE	CITATION	STATUS	RELEVANT TEXT
Texas	H.B. 316, 87th Leg., Reg. Sess. (Tex. 2021); S.B. 1145, 87th Leg., Reg. Sess. (Tex. 2021).	Proposed	(1-a) "Analogue product" means a food product derived by combining processed plant products, insects, or fungus with additives to approximate the texture, flavor, appearance, or other aesthetic qualities or the chemical characteristics of any specific type of meat, meat food product, poultry, or poultry product. (1-c) "Beef" means any edible portion of a formerly live and whole cattle carcass. The term includes any commonly understood variation or abbreviation of the term. The term does not include a cell-cultured, plant-based, or insect-based food product. (2-a) "Cell-cultured product" means a food product derived by engineering muscle tissue fibers from animal cells in a laboratory or similar setting. (19-a) "Pork" means any edible portion of a formerly live and whole swine carcass. The term includes any commonly understood variation or abbreviation of the term. The term does not include a cell-cultured, plant-based, or insect-based food product. (a) A livestock,or poultry product, analogue product, or cell-cultured product is misbranded if: (13) for an analogue product of meat, a meat food product, poultry, or a poultry product, its label does not bear in prominent type of uniform size immediately before the name of the product any of the following terms: (A) "analogue"; (B) "meatless"; (C) "plant-based"; (D) "made from plants"; or (E) a similar qualifying term or disclaimer intended to clearly communicate to a consumer the contents of the product; or (14) for a cell-cultured product, its label does not bear in prominent type of uniform size immediately before the name of the product any of the following terms: (A) "cell-cultured"; or (B) "lab-grown". (d) If a food is alleged to be misbranded because the labeling or advertising is misleading, the department in determining whether the labeling or advertising is misleading shall consider, among other characteristics: (1) a representation made or suggested by a statement, word, design, image, device, sound, or any combination of these; and (2) the extent to which the labeling or advertising suggests the food is: (A) authentic meat or poultry if the food is not meat or poultry; (B) a meat product or poultry product if the food is not a meat product or poultry product; or (C) derived from livestock in any form if the food is not derived from livestock.

STATE	CITATION	STATUS	RELEVANT TEXT
Texas	H.B. 2217, 87th Leg., Reg. Sess. (Tex. 2021).	Proposed	Sec. 431.082. MISBRANDED FOOD. A food shall be deemed to be misbranded:(d) if it is an imitation of another food, including any food that approximates the texture, flavor, appearance, or other aesthetic qualities of or the chemical characteristics of any specific type of poultry or poultry product, meat or meat food product, egg or egg product, or fish, unless the food'sits label bears, in prominent type of uniform size, as applicable: (1) the word "imitation" and immediately followed bythereafter the name of the food imitated; (2) "This product does not contain animal protein"; (3) the word "meatless"; (4) the words "meat free"; or (5) the words "egg free";
Texas	H.B. 2277, 87th Leg., Reg. Sess. (Tex. 2021).	Proposed	Sec. 18.0521. MISLABELING OF FOOD PRODUCTS. A person violates this subchapter if, in order to directly or indirectly induce the purchase of a food product, the person labels, misbrands, or misrepresents the food product with: (1) a term that has a standard of identity, if the food product does not meet the standard of identity; (2) an image, depiction, or graphic of a livestock animal, if the food product does not contain a product derived from a livestock animal, unless the food product's label bears, in prominent type of uniform size, as applicable: (A) the word "imitation" immediately followed by the name of the product imitated; (B) "This product does not contain animal protein"; (C) the word "meatless"; (D) the words "meat free"; or (E) the words "egg free"; or (3) a claim that the food product is nutritionally similar or superior to a food product with a standard of identity unless the food product's label contains a factual comparison of the food products' nutritional values.

STATE	CITATION	STATUS	RELEVANT TEXT
Texas	S.B. 2277, 87th Leg., Reg. Sess. (Tex. 2021).	Proposed	(2) "Beef" means any edible portion of a formerly live and whole cattle carcass, not derived by synthetic or artificial means. (3) "Chicken" means any edible portion of a formerly live and whole poultry carcass, not derived by synthetic or artificial means. (8) "Meat" means any edible portion of a livestock carcass that does not contain lab-grown, cell cultured, insect, or plant-based food products. Sec. 433A.0003. MISBRANDED FOOD. A food advertised or labeled as containing or imitating meat shall be considered misbranded if: 3) any portion of the food's advertising or labeling suggests or implies that the food imitates meat, beef, chicken, or pork when the food does not; (4) the food includes a label stating "meat," "beef," "chicken," "pork," or any common variation of those terms, if the food does not contain the products listed on the label; and (5) the food's label includes a claim comparing the food's nutritional value to that of meat without disclosing the human benefit of the food. Sec. 433A.0004. DETERMINATION OF MISLEADING LABELING OR ADVERTISING. If a food is alleged to be misbranded because the labeling or advertising is misleading, the department in determining whether the labeling or advertising is misleading shall consider, among other characteristics: (1) a representation made or suggested by a statement, word, design, device, sound, or any combination of these; and (2) the extent to which the labeling or advertising suggests the food is: (A) authentic meat; (B) a meat product; or (C) derived from livestock in any form.
Vermont	S.B. 206, 2020 Leg., Reg. Sess. (Vt. 2020).	Proposed	This bill proposes to prohibit the sale of a product labeled as meat, a meat food product, poultry, or a poultry 8 product, or food when the product does not contain meat. (25) "Misbranded" shall apply to any livestock product or poultry product under one or more of the following circumstances: (M) if it is represented as meat or a meat food product but was not derived from or harvested from a carcass of cattle, bison, sheep, swine, domestic rabbits, or goats or from a poultry carcass.
Virginia	H.B. 2274, 2019 Leg., Reg. Sess. (Va. 2019).	Proposed	A. A food shall be deemed to be misbranded: 15. If it purports to be, or is represented as, a meat food product, as defined in § 3.2-5400, but is not a meat food product, except to the extent that its label bears, in type of uniform size and prominence, the word "imitation" and, immediately thereafter, the name of the meat food product imitated.

STATE	CITATION	STATUS	RELEVANT TEXT
Washington	S.B. 6329, 66th Leg., Reg. Sess. (Wash. 2020).	Proposed	(20) "Identifiable meat term" includes, but is not limited to, terms such as meat, beef, pork, poultry, chicken, turkey, lamb, goat, jerky, steak, hamburger, burger, ribs, roast, bacon, bratwurst, hot dog, ham, sausage, tenderloin, wings, breast, and other terms for food that contain any meat, meat food product, poultry product, or poultry food product. Sec. 2. A new section is added to chapter 15.130 RCW under the subchapter heading "special quality or labeling requirements" to read as follows: (1) A food is considered misbranded under RCW 15.130.210 if it is a meat analogue and (a) its labeling or advertisement utilizes an identifiable meat term; and (b) the labeling or advertisement does not have a disclaimer in the same font, style, and size immediately before or after the identifiable meat term, stating "this product does not contain meat."
Washington	H.B. 1909, 67th Leg., Reg. Sess. (Wash. 2022).	Proposed	"The legislature finds that it is important for consumers to know what they are purchasing and eating. In this era of increasing technology, meat substitutes, both plant-based and lab-cultured, are becoming increasingly popular. The legislature finds that it is important to ensure food labels are clear and unmistakable. Food labeling is regulated federally, but the legislature repeats the statement from the United States government accountability office that "federal regulators still lack information on technology, production methods, and composition of any final cultured cell products." Meat terminology is often used for vegan and vegetarian meat substitutes. Additionally, meat imported from other countries has also become exceedingly more available as the global economy grows. The legislature finds that it is important to clearly mark what is traditional United States-grown meat, what is a meat analogue, and what is cultured cell-based meat."
Wisconsin	S.B. 464, 2019 Leg., 104th Reg. Sess. (Wis. 2019).	Proposed	Under this bill, no person may label a food product as, or sell or offer for sale a food product that is labeled as, any type of meat product or "meat" unless the food product is derived from an edible part of the flesh of an animal or any part of an insect and does not include cultured animal tissue that is produced from animal cell cultures. The bill defines "animal" as a mammal, bird, reptile, amphibian, or mollusk.
Wisconsin	A.B. 75, 2021 Reg. Leg. Sess. (Wis. 2021); S.B. 82, 2021 Reg. Leg. Sess. (Wis. 2021)	Proposed	ASSEMBLY BILL 75 SECTION 1(2) No person may label a food product as, or sell or offer for sale a food product 2 that is labeled as, any type of meat product, "meat," or a similar term unless the food 3 product is derived from an edible part of the flesh of an animal or any part of an 4 insect, as defined in s. 94.67 (18), and does not include cultured animal tissue that 5 is produced from animal cell cultures. 6 (3) The department shall promulgate rules to implement this section.

STATE	CITATION	STATUS	RELEVANT TEXT
Wyoming	WYO. STAT. ANN. § 35-7-119 (2019).	Enacted	(e) (ii) Cell cultured or plant based products not consistent with the definition of meat in subparagraph (iii)(A) of this subsection and not derived from harvested livestock, poultry, wildlife or exotic livestock as those terms are defined in W.S. 11-26-101(a), 11-32-101(a)(iv), 23-l-101(a)(xiii) and 23-l-102(a)(xvi), shall clearly label cell cultured products as "containing cell cultured product" and clearly label plant based products as "vegetarian", "veggie", "vegan", "plant based" or other similar term indicating that the product is plant based; (iii) As used in this subsection: (A) "Meat" means the edible part of the muscle of animals, which is skeletal or which is found in the tongue, in the diaphragm, in the heart or in the esophagus, with or without the accompanying or overlying fat, and the portions of bone, skin, sinew, nerve and blood vessels which normally accompany the muscle tissue and which are not separated from it in the process of dressing, but shall not include the muscle found in the lips, snout or ears, nor any edible part of the muscle which has been manufactured, cured, smoked, cooked or processed.

ENDNOTES

1 U.S. Food & Drug Admin., Formal Agreement Between FDA and USDA Regarding Oversight of Human Food Produced Using Animal Cell Technology Derived from Cell Lines of USDA-amenable Species, (Mar. 7 2019) https://www.fda.gov/food/domestic-interagency-agreements-food/formal-agreement-between-fda-and-usda-regarding-oversight-human-food-produced-using-animal-cell.

2 Labeling of Meat or Poultry Products Comprised of or Containing Cultured Animal Cells, 86 Fed. Reg. 49491 (Sept. 03, 2021).

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