

Georgia State University College of Law

## Reading Room

---

Law Review Blog Posts

Publications

---

7-25-2022

### **What's in Your Glass? Whether Milk Labels Should be Based on Creation Process or End Product (Part II of III)**

Samantha Masters

Follow this and additional works at: [https://readingroom.law.gsu.edu/gsulr\\_blogposts](https://readingroom.law.gsu.edu/gsulr_blogposts)

---

# WHAT'S IN YOUR GLASS? WHETHER MILK LABELS SHOULD BE BASED ON CREATION PROCESS OR END PRODUCT (PART II OF III)\*

**Sam Masters**

## II. ANALYSIS

### A. *The Process-Versus-Product Debate*

It is essential to note that the product-versus-process debate is not addressing products like faux fur, replica designer purses, or prints of iconic paintings.<sup>1</sup> The products at focus in the debates discussed in this blog series are distinguishable only by the processes by which they are made, not in the end products themselves. When looking to established markets and non-legal trends, it becomes clear that society has determined that the process does matter. For example, despite being “physically identical” to each other, natural and synthetic gemstones are labeled and valued as two distinct products.<sup>2</sup> Additionally, meat

---

\* Originally published on the Georgia State University Law Review Blog (July 25, 2022).

1. Additionally, this debate is not about plant-based foods. The labeling war between plant-based foods and their animal-derived counterparts brings out a whole slew of different arguments. Plant-based companies purposefully distinguish themselves as providing consumers an alternative product—a product that is wholly and unarguably not meat. In contrast, cultured meat and bio-identical milk producers argue that their products are the same as animal products despite their different creation processes. See Kevin Sforza, *It's Just "Meat": Traversing Lab-Grown Meat Labeling and Safety Regulations to Combat Food Scarcity and Climate Change*, 5 ADMIN. L. REV. ACCORD 245, 262–63 (2020). These products are not sold as alternatives to animal meat but as a replacement. See *id.* Courts agree that additional labeling is unnecessary if the process is safe:

In *International Dairy Foods Ass'n v. Amestoy*, the U.S. Court of Appeals for the Second Circuit struck down a Vermont statute that required cattle farmers to involuntarily disclose to consumers that the cattle were treated with a growth hormone. The court reasoned that consumer desire to know which products were derived from hormone-treated herds was insufficient to compel farmers to label their products as such. “Absent, however, some indication that this information bears on a reasonable concern for human health or safety[,] . . . the manufacturers cannot be compelled to disclose it.” *Id.* at 257 (footnote omitted) (quoting *Int'l Dairy Foods Ass'n v. Amestoy*, 92 F.3d 67, 74 (2d Cir. 1996)).

2. See *Is It 'Real'? The Differences Between Natural, Synthetic and Imitation Gemstones*, GEMSTONEGURU, <https://gemstoneguru.com/is-it-real-the-differences-between-natural-synthetic-and-imitation-gemstones/> [<https://perma.cc/H5S7-3CLD>].

from free-range chickens is labeled distinctly from their caged counterparts and checks out at a steeper price.<sup>3</sup>

In anticipation of cultured meat becoming commercially produced, there is great controversy about how it should be labeled.<sup>4</sup> While supporters of “conventional agriculture interests” argue that labeling cultured meat as meat would “confuse customers,” cultured-meat producers argue that marketing the product as meat is accurate “because meat produced by cellular agriculture is actually ‘meat[.]’”<sup>5</sup> The following are the main arguments on either side of the process-versus-product debate within the cultured meat industry.

*1. Just Like Life, It’s the Journey, Not the Destination: Process Determines the Label*

There are two principal arguments as to why the process from which meat is derived is the determinative factor of how it should be labeled. First, the current legal definitions of meat were not intended to encompass cultured meat.<sup>6</sup> Second, products lacking clear labels detailing how and where the meat was produced will cause confusion in the marketplace, harming consumers and the livestock industry.<sup>7</sup>

*a. The Code Said What It Meant and Meant What It Said:*

---

3. Miki Kawasaki, *Know Your Chicken: What USDA Poultry Labels Actually Mean*, SERIOUS EATS, <https://www.serious eats.com/what-is-organic-free-range-chicken-usda-poultry-chicken-labels-definition> [https://perma.cc/PD88-P5ZP] (Feb. 22, 2019).

4. See Sarah Kettenmann & Bridget Lamb, *New Regulatory Frameworks for Cell-Cultured Meat*, 34 NAT. RES. & ENV’T 56, 56 (2020); Natalie R. Rubio, *So Far Cultured Meat Has Been Burgers—The Next Big Challenge is Animal-Free Steaks*, CONVERSATION (July 5, 2019), <https://theconversation.com/so-far-cultured-meat-has-been-burgers-the-next-big-challenge-is-animal-free-steaks-117727> [https://perma.cc/LM5B-MJWZ] (“So far researchers have cultivated bunches of cells that can be turned into processed meat like a burger or a sausage. This cultured meat technology is still in the early phases of research and development, as prototypes are scaled-up and fine-tuned to prepare for the challenges of commercialization.”).

5. Brian P. Sylvester, Nathan A. Beaver, Kara Schoonover & Jonathan I. Tietz, *From Petri Dish to Main Dish: The Legal Pathway for Cell-Based Meat*, 12 KY. J. EQUINE, AGRIC., & NAT. RES. L. 243, 294–95 (2020).

6. Joshua Pitkoff, *State Bans on Labeling for Alternative Meat Products: Free Speech and Consumer Protection*, 29 N.Y.U. ENV’T L.J. 297, 305 (2021); Alan Sachs & Sarah Kettenmann, *A Burger By Any Other Name*, 15 A.B.A. SCITECH LAW. 18, 21–22 (2019).

7. Pitkoff, *supra* note 6, at 301.

*Interpreting the Definition of Meat as the Authors Intended*

The Federal Meat Inspection Act (FMIA) defines meat as “the part of the muscle of any cattle . . . which is skeletal or . . . which normally accompan[ies] the muscle tissue and that [is] not separated from it in the process of dressing.”<sup>8</sup> Additionally, the FMIA defines “meat food product” as “any product . . . made wholly or in part from any meat or other portion of the carcass of any cattle . . . .”<sup>9</sup>

These definitions were not written to navigate the intricacies posed by the technological advancements of today’s world, but were written merely to keep consumers safe when purchasing the main course for their next cookouts.<sup>10</sup> Interpreting a statutory definition to include everything it does not explicitly exclude can lead to undesirable consequences.<sup>11</sup> Therefore, reading the above definitions of meat to include lab-grown products goes against the intentions of the drafters.<sup>12</sup>

In response to the use of “meat” to label products not derived from animal carcasses, the U.S. Cattlemen’s Association (USCA) has outwardly petitioned for the Food Safety and Inspection Service (FSIS) to enact a definition that would limit the label of meat to include only animals born, raised, and harvested in the traditional manner.<sup>13</sup> In 2018, Missouri became a trailblazer in the United States by enacting the first law to specifically prohibit “‘misrepresenting’ [a] product as

---

8. 9 C.F.R. § 301.2 (2022).

9. *Id.*

10. *Food Made with Cultured Animal Cells*, U.S. FOOD & DRUG ADMIN. (Oct. 6, 2020), <https://www.fda.gov/food/food-ingredients-packaging/food-made-cultured-animal-cells> [<https://perma.cc/EV3H-USLX>].

11. WRITING CTR., GEORGETOWN UNIV. L. CTR., A GUIDE TO READING, INTERPRETING AND APPLYING STATUTES 5, <https://www.law.georgetown.edu/wp-content/uploads/2018/12/A-Guide-to-Reading-Interpreting-and-Applying-Statutes-1.pdf> [<https://perma.cc/S4X4-L8YY>]. A negative-implication canon requires that, when reading a statute, the expression of one thing implies the exclusion of others. *Id.* Thus, where certain terms have been explicitly set forth in a statute, that statute may be interpreted as not applying to terms that have been excluded from the statute. *Id.*

12. See U.S. Cattlemen Ass’n, Petition for the Imposition of Beef and Meat Labeling Requirements: To Exclude Products Not Derived Directly from Animals Raised and Slaughtered from the Definition of “Beef” and “Meat,” at 4, [https://www.fsis.usda.gov/sites/default/files/media\\_file/2020-07/18-01-Petition-US-Cattlement-Association020918.pdf](https://www.fsis.usda.gov/sites/default/files/media_file/2020-07/18-01-Petition-US-Cattlement-Association020918.pdf) [<https://perma.cc/Q6M7-GYJN>] [hereinafter Petition].

13. *Id.*

meat if it consists of something not derived from traditionally harvested livestock or poultry.”<sup>14</sup>

Subsequently, multiple other “states proposed bills to restrict use of ‘meat’ on food labels.”<sup>15</sup> In 2019, sixty bills were introduced in thirty-one states, and thirteen of those bills were enacted.<sup>16</sup> Although the specific language differs throughout states’ bills, the basis is that meat is “derived from animals harvest[ed] by traditional means.”<sup>17</sup> Significantly, these bills hinged their new definitions of meat on the process in which the meat came to be, not on the product.

*b. Consumer Confusion: If It Looks like Meat, Is Labeled as Meat, and Is Stocked as Meat, It Should Be Meat*

It is well established that there is no consumer confusion in the plant-based food market; however, because of the novelty of cultured meat, there is very little understanding of what these products are and “relatively little history regarding the use of meat-related descriptions for them.”<sup>18</sup> Despite consumers knowing very little, if anything, about cultured meat, most describe it as gross and unnatural.<sup>19</sup> Most consumers, independent of their feelings toward cultured meat, expect

---

14. Dan Flynn, *Promised Meat Labeling Compromise Fails to Materialize in Missouri Federal Court*, FOOD SAFETY NEWS (July 15, 2019), <https://www.foodsafetynews.com/2019/07/promised-meat-labeling-compromise-fails-to-materialize-in-missouri-federal-court/> [https://perma.cc/23ED-3895]; Sachs & Kettenmann, *supra* note 6, at 22.

15. Nicole E. Negowetti, *Taking (Animal-Based) Meat and Ethics Off the Table: Food Labeling and the Role of Consumers as Agents of Food Systems Change*, 99 OR. L. REV. 91, 122 (2020).

16. *Food Legislation 2019*, ASS’N FOOD & DRUG OFFS., <https://www.afdo.org/wp-content/uploads/2020/09/Food-Legislation-2019.pdf> [https://perma.cc/D5EM-S7E8].

17. *Id.* (“Legislation uses terms such as ‘clean meat,’ ‘cell-based meat,’ ‘cell-cultured meat,’ or ‘lab-grown meat’ to refer to artificially-grown muscle or organ cells of animals. Other bills limit the term ‘beef’ and ‘meat’ to products from ‘cattle born, raised and harvested in the traditional manner.’”)

18. Steph Tai, *Legalizing the Meaning of Meat*, 51 LOY. U. CHI. L.J. 743, 776 (2020).

19. Matti Wilks, *Cultured Meat Seems Gross? It’s Much Better Than Animal Agriculture*, CONVERSATION (Feb. 27, 2019), <https://theconversation.com/cultured-meat-seems-gross-its-much-better-than-animal-agriculture-109706> [https://perma.cc/ST5Y-33LZ] (“[D]isgust is not a good guide for rational decision-making. Cultural differences in meat consumption illustrate this point. Typically, Westerners are happy to eat pigs and cows, but consider eating dogs disgusting. But dog meat is consumed in some Asian cultures. So what is disgusting appears to be somewhat determined by what is normal and accepted in your community. With time, and exposure to cultured meat, it’s possible that these feelings of disgust will disappear.”).

labels to honestly represent what they are buying.<sup>20</sup> Specifically, if a label describes a product as meat, the historical and legal expectation is that the product is from the carcass of an animal—not a factory or petri dish.<sup>21</sup> Farmers have served this country since its founding, and early leaders like George Washington and Benjamin Franklin made some of the most impactful improvements to farming methods.<sup>22</sup> Naturally, modern farmers value their duty to protect consumers from burgeoning biotechnology industries appropriating a product so deeply rooted in this nation’s history.<sup>23</sup>

To this end, a bill was introduced to the U.S. House of Representatives in October 2019 with the similar aim of “ensur[ing] that consumers can make informed decisions in choosing between meat products such as beef and imitation meat products.”<sup>24</sup> The proposed Real Marketing Edible Artificials Truthfully Act (Real MEAT Act) requires that a product have “the word ‘imitation’ immediately before or after the name of the food and a statement that clearly indicates the product is not derived from or does not contain meat.”<sup>25</sup> Further, the bill uses the term meat as it is used in the FMIA, which defines a meat food product as a product derived with a sufficient proportion coming from a carcass.<sup>26</sup> If passed, this bill will use the process through which a meat product is derived to distinguish what label can be placed on it for the benefit of consumers’ comprehension of the product and its source.<sup>27</sup> Effectively, this bill would bar cultured meat products from being labeled as meat and

---

20. John Unrein, *Consumer Expectations of Clean Label Evolve*, BAKE (Apr. 2, 2021), <https://www.bakemag.com/articles/14555-consumer-expectations-of-clean-label-evolve> [<https://perma.cc/5WD9-N5PR>].

21. See Mihai Andrei, *The Meat Industry Is Freaking Out over Plant-Based Meat. They Should*, ZME SCI. (Feb. 25, 2021), <https://www.zmescience.com/other/pieces/meat-industry-plant-alternatives-19022021/> [<https://perma.cc/MZ97-MCJJ>].

22. Justin Fritscher, *The Founding Farmers*, U.S. DEP’T AGRIC., FARMERS.GOV (Feb. 12, 2019), <https://www.farmers.gov/blog/founding-farmers> [<https://perma.cc/MCG2-JMP3>].

23. See *id.*; Petition, *supra* note 12, at 1, 4.

24. Negowetti, *supra* note 15, at 121 (quoting Real Marketing Edible Artificials Truthfully Act of 2019 (Real MEAT Act), H.R. 4881, 116th Cong. (2019)).

25. H.R. 4881 § 3.

26. *Id.*; 21 U.S.C. § 601(j).

27. H.R. 4881 § 3.

require that the label explicitly call attention to the fact that the product it is not meat.<sup>28</sup>

*2. It Doesn't Matter How You Get There, as Long as You Cross the Finish Line: Why the Process Is Irrelevant if the Products Are Equivalent*

In March 2016, legislators passed an amendment to the Agricultural Marketing Act of 1946 that removed the requirement that beef and pork have a Country of Origin Label (COOL).<sup>29</sup> This legislation clearly exemplifies that consumers and legislators care more about the product they are buying than the product's conception or origin story. In fact, to overcome this "meat paradox," the livestock industry depends on their products being sold in "pretty packages - physically, verbally and conceptually distancing [their customers] from the real origin" of their products.<sup>30</sup>

Advocates for labeling meat based on the end product establish their argument in the First Amendment right to free speech. However, the very nature of the FDA's duty to regulate what companies are authorized to put on their products opens the door to First Amendment challenges.<sup>31</sup> To control the bounds of these claims, in 1980 the Supreme Court made a "four-part test to determine whether to protect . . . commercial [free] speech" on a case-by-case basis.<sup>32</sup> With

---

28. *Id.*

29. Removal of Mandatory Country of Origin Labeling Requirements for Beef and Pork Muscle Cuts, Ground Beef, and Ground Pork, 81 Fed. Reg. 10755, 10755 (Mar. 2, 2016) (codified at 7 C.F.R. pt. 65). The USDA issued a final rule to conform to the amendments. *See* 7 C.F.R. § 65.100 (2022).

30. Julia Shaw, *What the 'Meat Paradox' Reveals About Moral Decision Making*, BBC FUTURE (Feb. 6, 2019), <https://www.bbc.com/future/article/20190206-what-the-meat-paradox-reveals-about-moral-decision-making> [https://perma.cc/TEF8-AKTP] ("[T]he 'meat paradox' is the 'psychological conflict between people's dietary preference for meat and their moral response to animal suffering. . . [B]ringing harm to others is inconsistent with a view of oneself as a moral person. As such, meat consumption leads to negative effects for meat-eaters because they are confronted with a view of themselves that is unfavourable: how can I be a good person and also eat meat?").

31. Pitkoff, *supra* note 6, at 303.

32. *Id.* at 312–13 ("The first step is a threshold inquiry to determine whether the speech is eligible for First Amendment protection[.] . . . If it passes the threshold inquiry and is eligible for First Amendment protection, the government's restriction only survives if it satisfies the remaining three requirements: '[2] . . . whether the asserted governmental interest is substantial[.] [3] . . . whether the regulation directly advances the governmental interest asserted, and [4] whether it is not more extensive than is necessary to

modern revisions in effect, this test now turns on the first factor of “whether a label is misleading,” and, in making this determination, courts rely on evidence such as the dictionary and consumer expectations.<sup>33</sup>

“[A]lthough the purported basis behind various meat labeling laws and regulations” is “actual consumer confusion” based on mislabeling, the evidence of such confusion being a reality for consumers is “sparse” and “not well-supported.”<sup>34</sup> “[T]he dispute appears to be focused on retaining particular places in eaters’ diets, rather than actual confusion.”<sup>35</sup> Additionally, “[a]dvocates of lab-grown meat maintain the position that lab-grown meat technically is meat because it is cultivated from the cells of live animals; therefore, use of the term ‘meat’ in describing the product is neither false nor misleading.”<sup>36</sup>

In a 2019 case, The Tofurky Company successfully enjoined an unconstitutional Arkansas meat labeling law because the court found that “the simple use of a word frequently used in relation to animal-based meats does not make use of that word in a different context inherently misleading.”<sup>37</sup> Yet, this case is distinguishable from the anticipated claims of cultured meat producers. Tofurky and other plant-based companies ground their arguments in the fact that their products are not meat, and consumers are not misled into buying products under the false impression that they are meat.<sup>38</sup> In contrast, a cultured meat producer will claim that its product *is* meat by biological

---

serve that interest.’ If the government, which bears the burden of justifying its restriction, is unable to satisfy any of these three requirements, the speech cannot be restricted.”(footnote omitted) (quoting *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n of N.Y.*, 447 U.S. 557, 566 (1980)).

33. *Id.* at 318–19.

34. Tai, *supra* note 18, at 779 (“What instead lies behind these battles is a struggle for . . . the ‘center’ of our plates.”).

35. *Id.* at 781.

36. Eryn Terry, *The Regulation of Commercial Speech: Can Alternative Meat Companies Have Their Beef and Speak It Too?*, 23 VAND. J. ENT. & TECH. L. 223, 226 (2020) (footnote omitted).

37. *Turtle Island Foods SPC v. Soman*, 424 F. Supp. 3d 552, 573–74 (E.D. Ark. 2019). The Arkansas law at issue, as applied, “prohibit[ed] Tofurky from using words like ‘meat,’ ‘beef,’ ‘chorizo,’ ‘sausage,’ and ‘roast’ to describe its plant-based meat products.” *Id.* at 563. The Court considered the labels in the record and found “the speech at issue not inherently misleading.” *Id.* at 573–74.

38. *See* Tai, *supra* note 18, at 777.



standards, and it is therefore accurate and not misleading to label its product as such.<sup>39</sup>

Per FSIS protocol, “[i]f a new method of production of process alters the biological . . . [or] chemical . . . properties of meat[,] . . . new label requirements” will be established “to ensure consumers’ expectations are met.”<sup>40</sup> With cultured meat, the process by which the product is made does not change the biological or chemical property of meat in a way that requires a new label.<sup>41</sup>

### B. Applying The Cultured Meat Framework To Bio-Identical Milk

By applying the process-based labeling method to milk, we look to the definition provided by the FDA: Milk is “obtained by the complete milking of . . . healthy cows.”<sup>42</sup> On its face, this definition leaves no room for interpretation that a product created in a fermentation tank should be labeled milk.<sup>43</sup>

Similar to the intentions of the Real MEAT Act, the Defending Against Imitations and Replacements of Yogurt, Milk, and Cheese to Promote Regular Intake of Dairy Everyday Act (the DAIRY PRIDE Act) was written to rectify consumer confusion of products sold under the broad term “dairy.”<sup>44</sup> This Act mirrors the FDA definition by explicitly focusing on the process of “complete milking” to determine if a product can be labeled as milk.<sup>45</sup> However, the Act contrasts with the FDA definition in that it broadens the scope to include all hooved animals rather than only healthy cows.<sup>46</sup>

Further, looking to the product-based labeling method, labeling milk solely based on the product is a much more strenuous task than it is in the cultured meat industry. Under the first factor of the Supreme

---

39. *See id.*

40. Labeling of Meat or Poultry Products Comprised of or Containing Cultured Animal Cells, 86 Fed. Reg. 49491, 49493 (Sept. 3, 2021) (codified at 86 C.F.R. § 169 (2022)). In 1995 a novel method of mechanically separating poultry products changed the “physical form, texture, and ingredients,” so the FSIS acted on this and made a supplemental new standard of identity to address the concern. *Id.*

41. *See Sforza, supra* note 1, at 262–63.

42. 21 C.F.R. § 131.110(a) (2022).

43. *See id.*

44. DAIRY PRIDE Act, S. 1346, 117th Cong. § 2 ¶ 10 (2021).

45. *Id.*

46. *Compare id.* at §§ 3–4, with 21 C.F.R. § 131.110 (2022).

Court's test, bio-identical milk companies may struggle to prove that their product is not misleading when labeled as milk.<sup>47</sup> To refute a claim that the product is misleading, cultured meat companies can use the definition of meat to show that a product fits well within this definition.<sup>48</sup> However, because the milk definition as it currently stands per the FDA regulation is so narrow, it does not provide bio-identical companies with an easy legal argument.<sup>49</sup> The companies could argue that the consumers are not morally misled when buying the products; however, if the products are not branded per the FDA statute, then courts would likely have to find that the products are misleading for inaccurate labeling. The success of these claims will depend on whether courts enforce the FDA's definition of milk that explicitly discusses the process of milking a cow or choose to follow the precedent set by cases involving plant-based milks that reject the FDA's definition and instead focus on consumer expectations.<sup>50</sup>

The FDA's narrow definition is problematic because it excludes all plant-based milks that are widely accepted by courts and consumers as a type of milk, excludes all milks produced from other animals, and excludes milk created through precision fermentation that has an identical biological composition as the milk directly secreted from a cow. This overly narrow definition does not allow for judicial consistency and results in courts ignoring the FDA's Standard of Identity (SOI) and instead relying on their own discretion to apply common usage of the word "milk."

---

47. See Pitkoff, *supra* note 6, at 312–13.

48. See 9 C.F.R. § 301.2 (2022).

49. See 21 C.F.R. § 131.110.

50. See *Ang v. Whitewave Foods Co.*, No. 13-CV-1953, 2013 WL 6492353, at \*4 (N.D. Cal. Dec. 10, 2013) (“[I]t is simply implausible that a reasonable consumer would mistake a product like soymilk or almond milk with dairy milk from a cow. The first words in the products’ names should be obvious enough to even the least discerning of consumers.”); Meagan Morris, *Would You Buy Almond Nut Juice? FDA to Crack Down on Nut ‘Milks’*, METRO (July 19, 2018), <https://www.metro.us/body-and-mind/health/would-you-drink-nut-juice> [<https://perma.cc/8XTH-T6QR>] (“It’s easy to see why we call it nut milk: The creamy texture visually looks more like dairy milk than anything else. Nut juice doesn’t seem right . . . because we’re used to the consistency of fruit juices that have a thinner texture.”).