CONSUMER CHOICE OR CONFUSION: THAT GMO LABEL DOESN'T MEAN WHAT YOU THINK IT MEANS

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ABSTRACT

We've all been there—staring at the conglomerate of figures and claims meticulously laid out on a crowded product label. Purchasing a "sugar-free" or "caffeine-free" product seems relatively straightforward, as the product does not contain sugar or caffeine. But labels claiming that the product was "produced with GMOs (Genetically Modified Organism)" or "produced with genetic engineering" are not as straightforward as sugar or caffeine. What is a GMO? What is genetic engineering (GE)? What if these definitions turned out to be highly controversial, and different interpretations included different processes that qualify as GMO or GE? If so, the label no longer conveys a coherent message to the consumer about the information they believe they are receiving. In recent years, publicly organized movements have fought for mandatory GMO/GE labeling by demanding that it is the consumer's right to know such information. Industry groups challenged proposed mandatory labeling under First Amendment protections for compelled speech. In the single opportunity when a court weighed in on the merits of the First Amendment claim, it upheld GMO labeling by applying less exacting constitutional scrutiny as espoused in Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio *for compelled speech that is "factual and uncontroversial."*

This article argues that GMO labeling laws do not qualify for less exacting scrutiny and must be analyzed under intermediate scrutiny as required by Central Hudson Gas & Electric Corporation v. Public Service Commission of New York. *The Zauderer "factual and uncontroversial" test is far from clear on its interpretation and application. This article first revisits Zauderer in an attempt to clarify the threshold test for compelled speech warranting less exacting scrutiny. Application of the test to mandatory GMO labeling laws shows that the controversial context of speech used on product labels precludes application of Zauderer's less exacting scrutiny. Therefore, mandatory GMO labeling laws must be analyzed, and ultimately fail to pass First Amendment constitutional muster under intermediate scrutiny. In fact, consumer choice related to genetically modified foods is best achieved without mandatory GMO labeling. In an era of less regulation, the rise of voluntary third-party certification provides the most accurate information to consumers that truly care about the science behind their food.*

I. INTRODUCTION

Lions and tigers and GMOs. . .oh my! Genetically Modified Organisms (GMOs) have emerged as a hot-button topic for food consumers all over the world. Although the controversy embroils many terms—genetically engineered (GE),

genetically modified (GM), bioengineered—all of the terms generally relate to the concept of direct genetic manipulation. Not only has this scientific achievement garnered worldwide attention, it has also caused an uproar amongst citizens concerned with the safety of these genetic manipulation methods. This anti-GMO movement is credited with the increase in consumer awareness campaigns regarding GMOs and the eventual push for GMO labeling.

In the wake of the anti-GMO movement many, states introduced mandatory GMO labeling initiatives or legislation, but most were ultimately unsuccessful. In 2014, Vermont finally garnered enough support and passed the first mandatory GMO labeling law.[1] The mandatory process was set to take effect in 2016.[2] Industry groups quickly realized the implications of a lone state with a mandatory GMO labeling law and lobbied for compromised federal legislation that would preempt a patchwork of state laws.[3] Prior to the enactment of the federal legislation that eventually preempted state laws,[4] the battle began in Vermont as industry groups challenged the law as violating the First Amendment.[5]

In *Grocery Manufacturers Association v. Sorrell* (*Sorrell*), the Federal District Court in Vermont ultimately rejected the plaintiffs' argument that the mandatory labeling law violated the First Amendment.[6] Plaintiffs argued that heightened scrutiny must apply to the GMO labeling law.[7] However, the court was persuaded by Vermont's argument that GMO labeling, as compelled speech, need only to satisfy the less exacting reasonable relation scrutiny,[8] which is a death knell to any First Amendment challenge. The Second Circuit took the appeal, but after the federal law passed, the parties withdrew the lawsuit thereby depriving the Second Circuit from weighing in on the appropriate level of scrutiny.[9]

1. Dana Ford & Lorenzo Ferrigno, *Vermont Governor Signs GMO Food Labeling into Law*, CNN (May 8, 2014), https://perma.cc/AU34-JMUY.

2. *Id*.

3. Glenn S. Kerner, *Food for Thought: The Federal GMO Labeling Law*, FOOD SAFETY MAGAZINE (Feb./Mar. 2017), https://perma.cc/EAK4-G4CE.

4. 7 U.S.C. § 1639b (2018).

5. *See* Complaint at 13, Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d. 583 (D. Vt. 2015) (No: 5:14-cv-00117). *See also* Daniel Enoch, *Lawyers for Vermont, Grocery Manufacturers Spar over GMO Labeling Bill*, AGRIPULSE (Oct. 8, 2015), https://perma.cc/6ZB3-PJ6Z.

6. Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d 583, 635 (D. Vt. 2015).

7. *Id*. at 626.

8. *Id*.

9. *Parties End Suit Challenging Vermont Law*, INT'L DAIRY FOODS ASS'N (Sep. 7, 2016), https://perma.cc/8GPP-K2ZU.

As noted in *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio (Zauderer)*, less exacting scrutiny for First Amendment challenges regarding compelled commercial speech, effectively rational basis scrutiny, is generally available only when the compelled speech is "factual and uncontroversial."[10] The plaintiffs in *Sorrell* argued that the science behind GMO safety is highly controversial so GMO labeling does not satisfy this *Zauderer* test and must receive intermediate scrutiny.[11] The District Court rejected this argument and went on to state that it must be something about the speech itself that is controversial, not the underlying public debate on whether the speech should be compelled.[12] What the court failed to consider is that the very speech at issue in GMO labeling is in fact controversial. Therefore, GMO labeling laws should receive intermediate scrutiny because they do not satisfy the threshold *Zauderer* test.[13]

Since *Zauderer*, the U.S. Supreme Court has reaffirmed the principles it espoused in the famous case, but the Court has not provided additional clarification on the threshold requirements for less exacting scrutiny.[14] Without clear guidance, many lower courts have struggled with the proper application of the *Zauderer* test.[15] This has led to diverging and conflicting views on what categories of compelled speech qualify for analysis under less exacting scrutiny.[16] This Article will attempt to clear the confusion regarding the proper interpretation of the *Zauderer* test and apply it generally to mandatory GMO labeling laws. Many scholarly articles have attempted to clarify or reinterpret *Zauderer*,[17] but this Article is the first in its interpretation and restatement of the *Zauderer* test and how it applies to mandatory GMO labeling laws.

10. Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 651 (1985); Jennifer M. Keighley, *Can You Handle the Truth? Compelled Commercial Speech and the First Amendment*, 15 U. PA. J. CONST. L. 539, 546 (2012) (discussing scrutiny levels for compelled speech).

11. *Sorrell*, 102 F. Supp. 3d at 628.

12. *Id.* at 629.

13. Keighley, *supra* note 10, at 548 (explaining intermediate scrutiny as default for analyzing commercial speech).

14. *See* Milavetz, Gallop & Milavetz, P.A. v. United States, 559 U.S. 229, 230-31 (2010) (rejecting argument that compelled disclosure of a "debt relief agency" in bankruptcy assistance advertisement is a violation of the First Amendment).

15. Note, *Repackaging Zauderer*, 130 HARV. L. REV. 972, 972 (2017).

16. *Id.* at 972-73.

17. *See, e.g., id.*; Richard W. Keidel, Note, *Constitutional Law—Free Speech and Genetically Modified Food Labeling: A Proposed Framework for Determining the Controversial Nature of Compelled Commercial Speech*, 38 W. NEW ENG. L. REV. 47, 81 (2016).

Part II will provide a background on GMO labeling and First Amendment scrutiny related to compelled commercial speech. Part III then revisits *Zauderer* in an attempt to delineate a clear two-part test for compelled commercial speech challenges. Part IV takes the newly espoused test and applies it to mandatory GMO labeling. After demonstrating that GMO labeling laws are not afforded less exacting scrutiny, Part V applies intermediate scrutiny to GMO labeling.

II. BACKGROUND

A. GMO Labeling

The first genetically engineered food marketed in the United States, introduced in 1994, was the Flavr Savr Tomato.[18] It was genetically engineered to stay ripe longer.[19] After the tomato, new genetic engineering techniques quickly progressed in the United States, and the technology spread into the agricultural realm by providing farmers with improved crop varieties.[20] Although the general opposition to GMOs began as early as the 1970s, the lack of public attention and information dissemination kept the opposition groups relatively compartmentalized.[21] But recently the anti-GMO movement gained new life with a shift in focus from elimination of GMOs to mandatory GMO labeling.[22] This movement sparked consumer demand for mandatory disclosure on foods created with GE or GMOs.

Oregon was the first state to yield to the demands of the anti-GMO movement. In 2002, Oregon introduced a ballot initiative that would require companies to label genetically modified food.[23] The initiative failed with a surprising 70% voter opposition.[24] Public support for biotechnology remained high through the 1990s and into the early 2000s, with many people acknowledging the

18. G. Bruening & J.M. Lyons, *The Case of the FLAVR SAVR Tomato*, 54 CAL. AGRIC. 6 (2000).

19. Michael Winerip, *You Call That a Tomato?*, N.Y. TIMES (June 24, 2013), http://www.nytimes.com/2013/06/24/booming/you-call-that-a-tomato.html.

20. *See* Gabriel Rangel, *From Corgis to Corn: A Brief Look at the Long History of GMO Technology*, HARV. U.: SCI. IN THE NEWS (Aug. 9, 2015), https://perma.cc/6KKQ-YE5D.

21. Carmen Bain & Tamera Dandachi, *Governing GMOs: The (Counter) Movement for Mandatory and Voluntary Non-GMO Labels*, 6 SUSTAINABILITY 9456, 9462 (2014), https://perma.cc/ZH4F-DR2K.

22. *Id*.

23. *Id*.; Josh Harkinson, *Is 2014 the "Tipping Point" for the GMO Labeling Movement?*, MOTHER JONES (Sept. 29, 2014), https://perma.cc/6MV5-LHVN; Ballot Measure No. 27 (Or. 2002).

24. Bain & Dandachi, *supra* note 21 at 9462.

gains associated with new biotechnology.[25] However, the anti-GMO movement persevered after the massive defeat in Oregon.[26] Eventually, a new wave of states began introducing legislation and ballot initiatives for mandatory GMO labeling.[27] This new wave of labeling legislation encountered intense resistance, and most of these progressive initiatives ultimately failed, albeit on much narrower margins than in 2002.[28]

In 2014, Vermont became the first state to successfully pass a mandatory GMO labeling law.[29] The law set in motion a process for implementing mandatory labeling requirements beginning in July 2016.[30] Needless to say, industry groups were displeased with requirements not only because of the added costs of the measure, but also because they foreshadowed the potential patchwork of state laws with differing labeling requirements—a nightmare for the food industry.[31] In response, food industry groups that opposed GMO labeling laws were generally pleased when Congress developed a federal labeling standard that would prevent the enormous costs associated with a tangled web of varying state regulation.[32]

Former President Obama signed the Federal GMO Labeling Law (Federal Labeling Law) into effect in July 2016.[33] The law generally preempts state GMO labeling laws and directs the U. S. Department of Agriculture (USDA) to develop

25. *Id*.

26. *See generally* Ross H. Pifer, *Mandatory Labeling Laws: What Do Recent State Enactments Portend for the Future of GMOs?*, 118 PA. ST. L. REV. 789, 800 (2014) ("Following this resounding defeat [Oregon], the issue of mandatory GMO labeling largely lie dormant in the public discourse for nearly a decade.").

27. STATE LEGISLATION ADDRESSING GENETICALLY MODIFIED ORGANISMS, NAT'L CONFERENCE. OF STATE LEGISLATURES (June 2015), https://perma.cc/S7F9-F58F [hereinafter STATE LEGISLATION].

28. *See* Pifer, *supra* note 26, at 801. (discussing California's Proposition 37, defeated by a margin of 51.41% to 48.59%); *see also* STATE LEGISLATION, *supra* note 27 (detailing state GMO legislation) (listing status of proposed initiatives and legislation); Bain & Dandachi, *supra* note 21, at 9462-63.

29. VT. STAT. ANN. tit. 9, § 3042 (2017); Carey Gillam & Lisa Baertlein, *Vermont Senate Passes Mandatory GMO Food-Labeling Law*, REUTERS (Apr. 16, 2014), https://perma.cc/6YC3-CRSJ.

30. VT. STAT. ANN. tit. 9, § 3043 (2017).

31. Dave Gram, *Food Industry Worries about Patchwork of State Regulations*, USA TODAY (June 28, 2016), https://perma.cc/SQA6-9XH7.

32. *See* Stephanie Strom, *G.M.O. Labeling Bill Clears First Hurdle in Senate*, N.Y. TIMES (July 6, 2016), https://www.nytimes.com/2016/07/07/business/gmo-labeling-bill-passes-first-hurdle-in-senate.html.

33. Stephen Dinan, *Obama Signs Bill Overturning Vermont's GMO Labeling Law*, WASH. TIMES (Aug. 2, 2016), https://perma.cc/HU92-K2ZV.

specific implementing rules for mandatory disclosure of bioengineered foods (the compromised term for GMO/GE).[34] The law is clearly a product of food industry lobbying as even anti-GMO groups are criticizing the bill, effectively dubbing it the Denying Americans the Right to Know Act (DARK).[35] The main criticisms stem from the available methods of disclosure, alleged disproportionate effects on lower-income consumers, and the narrow definition of what foods will be required to bear labels.[36]

Although the law represents a compromise between consumer advocates and the food industry, criticism from both sides will likely lead to legal challenges.[37] For example, either side could challenge the Federal Labeling Law for violating First Amendment protection of compelled speech.[38]

B. Compelled Speech—First Amendment Scrutiny

First Amendment jurisprudence is commonly analyzed from the frame of restricting or abridging free speech. However, in *West Virginia State Board of Education v. Barnette* (*Barnette*), the U.S. Supreme Court extended the same constitutional protection for compelled speech.[39] In *Barnette*, the Court reasoned that compelled flag salutes forced citizens to adopt speech that they may not agree with.[40] The Court held that not only did the compelled flag salutes exceed the government's constitutional authority, but they improperly invaded the individuals' rights to free speech under the First Amendment.[41] In a later case the Court explained that just as the First Amendment protects individuals in speaking their mind, it also protects them from "being compelled to affirm their belief in any governmentally prescribed position or view."[42] It follows that compelled speech in the commercial context also receives constitutional protection, albeit less

34. *Id*.

35. Michal Addady, *President Obama Signed this GMO Labeling Bill*, FORTUNE (July 31, 2016), https://perma.cc/4C9T-HPNN.

36. *Id*.

37. *See generally id*.

38. See generally Jonathan H. Adler, *Compelled Commercial Speech and Consumer "Right to Know"*, 58 ARIZ. L. REV. 421 (2016).

39. W. Va. Bd. of Ed. v. Barnette, 319 U.S. 624, 633-34 (1943); Adler, *supra* note 38, at 433. (discussing *Barnette*).

40. *Barnette*, 319 U.S. at 634.

41. *Id*. "To sustain the compulsory flag salute we are required to say that a Bill of Rights which guards the individual's right to speak his own mind, left it open to public authorities to compel him to utter what is not in his mind."

42. PruneYard Shopping Ctr. v. Robins, 447 U.S. 74, 88 (1980).

protection because commercial speech is analyzed differently than noncommercial speech.[43]

Speech involved in a commercial transaction demands a lesser degree of constitutional protection because of the ability of the government to regulate the realm of commercial speech.[44] The government has an interest in regulating commercial speech to protect consumers from false or misleading information.[45] Thus, balancing the interests between government regulation and commercial speech means that commercial speech is afforded less protection than noncommercial speech.[46] The degree of protection "turns on the nature of both the expression and of the governmental interests served by its regulation."[47] Due to their informational nature, product labels are classified as commercial speech and compulsory labeling requirements receive First Amendment protection as compelled commercial speech.[48]

When analyzing First Amendment challenges to commercial speech, the pivotal question is what level of constitutional scrutiny applies.[49] Generally commercial speech, compelled or restricted, must satisfy intermediate scrutiny as espoused in *Central Hudson Gas and Electric Corp. v. Public Service Commission of New York (Central Hudson).*[50]

1. Intermediate Scrutiny—Central Hudson

In *Central Hudson*, the Court addressed the constitutionality of the New York Public Service Commission's ban on promotional advertising by electrical

43. Ohralik v. Ohio State Bar Ass'n, 436 U.S. 447, 456 (1978) ("To require parity of constitutional protection for commercial and noncommercial speech alike could invite dilution . . . we instead have afforded commercial speech a limited measure of protection, commensurate with its subordinate position in the scale of First Amendment values . . . ").

44. Cincinnati v. Discovery Network, Inc., 507 U.S. 410, 426 (1993) ("[C]ommercial speech can be subject to greater governmental regulation than noncommercial speech."); Ohralik, 436 U.S. at 456 (commercial speech "occurs in an area traditionally subject to government regulation").

45. *Discovery Network, Inc.*, 507 U.S. at 426; Adler, *supra* note 38, at 428-29 (explaining consumer interests in commercial speech).

46. *See Discovery Network, Inc.*, 507 U.S. at 426.

47. Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y., 447 U.S. 557, 563 (1980).

48. Adolph Coors Co. v. Brady, 944 F.2d 1543, 1546 (10th Cir. 1991); Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d 583, 627 (D. Vt. 2015).

49. Adler, *supra* note 38, at 434-35 (discussing scrutiny levels).

50. Note, *supra* note 15, at 974-75.

utilities in New York.[51] Central Hudson Gas and Electric Corporation alleged that the ban improperly restricted commercial speech in violation of the First Amendment.[52] The Court distinguished commercial and noncommercial speech and noted that the First Amendment "protects commercial speech from unwarranted governmental regulation."[53] The Court went on to delineate a four-part test for First Amendment analysis of commercial speech.[54]

To be afforded constitutional protection under *Central Hudson*, the speech must relate to lawful activity and not mislead consumers.[55] Next, the government must assert a substantial interest in regulating the speech.[56] Then, if the government asserts a substantial interest, the regulation must directly advance that interest.[57] Finally, the regulation must not be unnecessarily extensive.[58] Although commercial speech is generally analyzed under *Central Hudson*, in *Zauderer* the Supreme Court carved out an exception for a category of compelled speech that demands a less exacting scrutiny.[59]

2. Less Exacting Scrutiny—Zauderer

The Court was less exact in carving out an exception to intermediate scrutiny for certain forms of compelled speech.[60] This led to inconsistent interpretation and application of the principles espoused by the Court in *Zauderer*.[61] At the most basic level, the oft-cited standard developed by the Court is that compelled disclosures of "factual and uncontroversial" information pass constitutional muster as long as they are reasonably related to a state interest.[62] The Court reasoned that lesser

51. *Cent. Hudson Gas & Elec. Corp.*, 447 U.S. at 558.

52. *Id.* at 560.

53. *Id.* at 561.

54. Keighley, *supra* note 10, at 548 (discussing Central Hudson).

55. *Cent. Hudson Gas & Elec. Corp.*, 447 U.S. at 566.

56. *Id.*

57. *Id.*

58. *Id.*

59. Keighley, *supra* note 10, at 539, 546; Note, *supra* note 15, at 972.

60. *See generally* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626 (1985); *see* Keighley, *supra* note 10 at 539, 546 ("There has been little elaboration on the scope of *Zauderer's* holding.").

61. Note, *supra* note 15, at 979; Keighley, *supra* note 10, at 541 (explaining confusion regarding *Zauderer* doctrine).

62. *Zauderer*, 471 U.S. at 651(In *Zauderer*, the Court specifically addressed the State's interest as preventing deception of consumers. But the principle has been extended beyond simply preventing deception to encompass other asserted state interests.); Note, *supra* note 15, at 973; *See e.g.,* Am. Meat Inst. v. USDA., 760 F.3d 18 (D.C. Cir. 2014) (broadening *Zauderer* scope); Note, *supra* note 15, at 979-80.

constitutional protection is appropriate because the "constitutionally protected interest in *not* providing any particular factual information . . . is minimal."[63] The recurring criticism is not with the scrutiny standard itself, as it is comparable to the rational basis test, but instead with the threshold test to determine which types of compelled speech will receive this less exacting scrutiny.[64]

Without clearly delineated components of the threshold test,[65] courts have struggled to interpret and apply the less exacting scrutiny espoused in *Zauderer*.[66] Courts have generally applied *Zauderer* as a two-step test that applies only to compelled speech that is: 1) factual and 2) uncontroversial.[67]

i. Factual

Seemingly, this is the most straightforward component of the test. Information is factual if it is not "opinion-based."[68] This requirement aims to prevent the government's intrusion into commercial speech by allowing it to compel opinions or recommendations in advertising that may simply further the government's own interest.[69] Another concern is the government forcing entities to communicate views with which they may disagree.[70] Therefore, as long as the government compels disclosure of factual information, the above concerns are avoided and consumers benefit from an increased amount of information with regards to the commercial transaction.[71]

63. *Zauderer*, 471 U.S. at 626.

64. *See* Note, *supra* note 15, at 979-80.

65. Some courts even argue the Supreme Court did not intend to create a legal test. *See, e.g.*, Disc. Tobacco City & Lottery, Inc. v. United States, 674 F.3d 509, 559 (6th Cir. 2012).

66. *See* Note, *supra* note 15, at 972.

67. *Id.* at 976.

68. Entm't Software Ass'n v. Blagojevich, 469 F.3d 641, 652 (7th Cir. 2006); *Disc. Tobacco City & Lottery, Inc.*, 674 F.3d at 559.

69. W. Va. Bd. of Ed. v. Barnette, 319 U.S. 624, 633-34 (1943) ("If there is any fixed star in our constitutional constellation, it is that no official, high or petty, can prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein.").

70. Turner Broad. Sys. v. FCC, 512 U.S. 622, 641 (1994); CTIA-Wireless Ass'n v. San Francisco, 494 Fed. App'x. 752, 753-54 (9th Cir. 2012); Adler, *supra* note 38, at 432 ("Forcing an individual to express views with which they disagree can pose just as great a threat to the free expression of thoughts and ideas as limitations on speech.").

71. Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 651 (1985) (emphasizing the goal of commercial speech to promote "the free flow of commercial information").

However, factual was only one of the components espoused in *Zauderer*.[72] The information must also be uncontroversial in order to satisfy the second step in the *Zauderer* test.[73] Unfortunately, courts have wrestled with interpreting the second step-most struggling is to give it any effect altogether, begging the question—is there even a second step?

ii. Uncontroversial

Lower courts have been little help in developing the uncontroversial step of *Zauderer*.[74] While some have encountered cogent arguments based on the two separate steps in the *Zauderer* analysis, those courts ultimately failed to provide a coherent analysis on the application of the uncontroversial step.[75] Recently, the Federal District Court in Vermont had the opportunity to clarify the second *Zauderer* step, conveniently in the context of a challenge to Vermont's GMO labeling law.[76]

In *Sorrell*, the plaintiffs argued that both the factual and uncontroversial requirements must be given separate and distinct meaning when applying the *Zauderer* test.[77] They then argued that nothing is more controversial than the safety of GMOs and the value of that information to consumers.[78] The court agreed with plaintiffs that the public debate about GMO safety is highly controversial.[79] But the court held that the underlying public debate does not make something controversial under *Zauderer*; it must be the speech itself that is controversial.[80] The court reasoned, "the fact that Plaintiffs would prefer not to make the required disclosure is insufficient to render it 'controversial.'"[81]

The court then had an opportunity to define the contours of the separate uncontroversial step, possibly by explaining circumstances where factual

72. *Id*. at 651.

73. *Id*.

74. *See* Note, *supra* note 15, at 979 (generally noting the "fractured" application of the *Zauderer* test in circuit courts).

75. *See* Note, *supra* note 15, at 984 (asserting the lack of "consistent understanding" of either step in the *Zauderer* test).

76. Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d 583, 594 (D. Vt. 2015).

77. Memorandum of Points & Authorities in Support of Plaintiffs' Motion for a Preliminary Injunction at 22-23, Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d. 583, No. 5:14-cv-00117-cr (D. Vt. 2015).

78. *Id*. at 22.

79. *Sorrell*, 102 F. Supp. 3d at 630.

80. *Id*. at 628.

81. *Id*.

information could nevertheless be controversial, but instead it reverted back to the circular reasoning that has plagued the *Zauderer* test by equating factual information to uncontroversial information.[82] Therefore, even as the court attempted to engage in analysis regarding whether Vermont's GE disclosure requirement compels controversial speech, it did not provide any further substantive support except that the court believes that factual information is inherently uncontroversial.[83]

Shortly after *Sorrell*, the D.C. Circuit Court of Appeals was faced with the similar task of tackling *Zauderer*'s uncontroversial step in the context of a challenge to compelled disclosure requirements related to the origin of certain minerals.[84] In *National Association of Manufacturers v. Security Exchange Commission (NAM)*, the court analyzed the constitutionality of the Security Exchange Commission's (SEC) compelled disclosure of "conflict minerals" for certain minerals sourced from the Democratic Republic of the Congo.[85] The court acknowledged that factual and uncontroversial must be separate and distinct parts of the *Zauderer* test.[86] But, it also acknowledged the confusion regarding what it should examine in determining the controversial nature of compelled speech.[87]

Dictum in the case points out the flaw in giving effect only to the factual step of *Zauderer*, "[i]t is easy to convert many statements of opinion into assertions of fact simply by removing the words 'in my opinion' or removing 'in the opinion of many scientists' or removing 'in the opinion of many experts.'"[88] The court looked to the dictionary definition of a controversy; "a dispute, especially a public one."[89] Ultimately, the court found that the conflict minerals rule did not qualify for *Zauderer*'s less exacting scrutiny.[90] But the reasoning still seemed grounded in the factual step because the court found the compelled disclosure was not "factual and

82. *Id*. at 630 ("Because [Vermont's] GE disclosure requirement mandates the disclosure of only factual information . . . it does not require the disclosure of 'controversial' information.").

83. *Id*.

84. *See* Nat'l Ass'n of Mfrs. v. Sec. Exch. Comm'n, 800 F.3d 518, 518 (D.C. Cir. 2015).

85. *Id*. at 520 The court reasoned that *Zauderer* did not apply because the case didn't involve advertising, but the court still provided analysis under *Zauderer* because of the uncertainty surrounding the reach of the doctrine.

86. *Id*. at 528.

87. *Id*. (noting Judge Kavanaugh's concurring opinion in Am. Meat Inst. v. United States Dep't of Agric. 746 F.3d 1065 (D.C. Cir. 2014), *aff'd en banc* 760 F.3d 18 (D.C. Cir. 2014)).

88. *Id*.

89. *Id*. at 529.

90. *Id*. at 530.

non-ideological."[91] This is another example of a court explicitly acknowledging factual and uncontroversial as separate and distinct steps but failing to define the contours of the test.

Today, the existence and substance of the second *Zauderer* step remains unclear.[92] Whether it is because courts are rarely presented with a compelling argument under *Zauderer's* uncontroversial step, or because courts find it easier to rely only on the factual step, the proper interpretation and application of the *Zauderer* two-step test remains elusive in legal jurisprudence. The next section will revisit *Zauderer* in an attempt to clarify the *Zauderer* test.

III. REVISITING *ZAUDERER*

In *Zauderer*, the Court sought to delineate a threshold standard for compelled disclosures that receive less exacting scrutiny.[93] The facts the Court wrestled with in *Zauderer* offer key insight into how it envisioned the future application of the factual and uncontroversial test.[94] I propose that the proper interpretation of the test requires two steps: 1) the *content* must be factual and 2) the *context* must be uncontroversial.

A. Factual Content

The factual step has gained relatively expansive support in its application. In most cases, it is the controlling step of the test. This step analyzes the content of the compelled disclosure to determine its factual nature. At a more basic level, factual speech alleges the existence or non-existence of some fact in the world.[95] One of the underlying evils this step aims to avoid is normative speech that carries with it an alternative message that is based on opinion.[96] Normative speech tends to compel a certain type of consumer behavior aligned with the government's objective in compelling the speech.[97] This type of speech tends to convey the government's opinion on an issue and requires heightened scrutiny to prevent the

91. *Id*.

92. *See* Keidel, *supra* note 17, at 81 (arguing that speech is controversial under *Zauderer* "when the disclosed fact is germane to a contested norm").

93. *See generally* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626 (1985).

94. *See generally id*.

95. *Fact*, MERRIAM-WEBSTER DICTIONARY, https://perma.cc/77FN-9RT8 (archived July 26, 2018) (defining a fact as "a piece of information presented as having objective reality").

96. Keighley, *supra* note 10, at 570 (explaining why normative speech is problematic in compelled speech).

97. *Id*.

government from forcing companies to convey opinions that they may disagree with.[98] The facts in *Zauderer* help further reinforce the analysis of the factual step.

Zauderer was an Ohio attorney that was advertising his services in the newspaper.[99] The complaint brought by the Office of Disciplinary Counsel of the Supreme Court of Ohio alleged that Zauderer's advertisement stating "[i]f there is no recovery, no legal fees are owed by our clients" violated a rule barring deceptive statements.[100] The advertisement was deceptive because it did not include information about the costs that clients may be liable for, and most laypersons don't know the difference between legal fees and costs.[101] The Ohio Supreme Court ultimately disciplined Zauderer for the deceptive advertising,[102] and Zauderer argued that disciplining him for the advertisement amounted to a forced disclosure of additional information in his advertising.[103] The additional required information was factual information regarding the difference between costs and fees.[104] The state required the additional information because the original advertisement left out facts that the Board deemed necessary to prevent consumer deception.[105]

The content in Zauderer's original advertisement was technically all factual information.[106] But the grouping of facts, and more importantly the omission of amplifying information, in that specific context conveyed a message that would arguably mislead consumers into thinking they would owe Zauderer no money unless their case was successful.[107] Therefore, compelled disclosure of additional *facts* about the other costs the client may be liable for was required to make the *context* uncontroversial.

B. Uncontroversial Context

When the facts in Zauderer's advertisement were viewed in context, the message became controversial because most laypeople do not know the difference

98. *Id.*

99. *Zauderer*, 471 U.S. at 629.

100. *Id.* at 631.

101. *Id.* at 652; Adler, *supra* note 38, at 434-35.

102. *Zauderer*, 471 U.S. at 635.

103. *Id.* at 634.

104. *Id.* at 652 ("an attorney advertising his availability on a contingent-fee basis [must] disclose that clients will have to pay costs even if their lawsuits are unsuccessful").

105. *Id.* ("The assumption that substantial numbers of potential clients would be so misled is hardly a speculative one . . . ").

106. In the sense that it presented the fact that clients would not be liable for *legal fees* if the suit were unsuccessful. *Id.* at 631. (emphasis added).

107. *See id.* at 634.

between legal costs and fees.[108] Now the contours of the two separate and distinct steps become clear. The Court deemed that the additional information regarding costs was factual and that by including the cost information with the fee information, the context was uncontroversial.[109] Further clarification is shown through a simple analogy: What if the board had been attempting to compel the exact information in the original advertisement? Although the compelled disclosure's content would be factual, the context would not be uncontroversial.[110] The inclusion of facts regarding a client's liability for legal costs *and* legal fees is required to make the context uncontroversial.[111]

Therefore, the second *Zauderer* step requires that the context of the facts be examined to determine its accuracy or potential for misinterpretation.[112] If the factual information requires context to determine its accuracy, it is the context that must be uncontroversial.[113] An example would be compelled speech that alleges factual information, but the existence or non-existence of the fact depends on how one defines or interprets that term. Then the very nature of the speech itself requires context to determine its accuracy or potential for misinterpretation.[114] One important clarification is that the government cannot simply define the term or its interpretation in the statute to create an uncontroversial context.[115] If the definition or interpretation of the speech is controversial then the context is not uncontroversial, and the compelled disclosure cannot receive less exacting scrutiny under *Zauderer*.[116]

This interpretation finds some support in jurisdictions that have taken aim at clarifying the uncontroversial step, but they ultimately conflated uncontroversial with accurate.[117] In *CTIA-Wireless Ass'n v. San* Francisco (*CTIA*), the court explicitly stated that "'[u]ncontroversial' should generally be equated with the

108. *Id*. at 652.

109. *See id*. at 651.

110. *See id*. The context of the advertisement would be the 'disclosure of the client's liability to the attorney.

111. *See id*. at 652.

112. R.J. Reynolds Tobacco Co. v. Food & Drug Admin., 696 F.3d 1205, 1216 (D.C. Cir. 2012) ("The disclosures approved in *Zauderer* and *Milavetz* were clear statements that were both indisputably accurate and not subject to misinterpretation by consumers.").

113. *See Zauderer*, 471 U.S. at 651.

114. *Id*. at 646.

115. *See, e.g.,* Nat'l Ass'n of Mfrs. v. Sec. Exch. Comm'n, 800 F.3d 518, 530 (D.C. Cir. 2015) (explaining that the government cannot simply define controversial terms and compel disclosures based off of those definitions).

116. *See generally Zauderer*, 471 U.S. 626.

117. CTIA-Wireless Ass'n v. Berkeley, 158 F.Supp.3d 897, 904 (N.D. Cal. 2016).

term 'accurate.'"[118] In *NAM II* the dissenting judge addressed the uncontroversial step by stating "even if the disclosure qualifies as 'purely factual,' it would still fall outside of *Zauderer* review if the *accuracy* of the particular information disclosed were subject to dispute."[119]

Although these two interpretations get us much closer to the interpretation of the uncontroversial step that I propose, they still espouse an unnecessarily restrictive application. If the Supreme Court meant for the test to be narrowly applied to factual and accurate information, it likely would have said so. After all, remember that Zauderer's original advertisement was factual and arguably accurate information when viewed solely in the context of legal fees.[120] Further, as explained above, uncontroversial context is a broader interpretation that still encompasses the accuracy of the information.

Empowered with the newly defined *Zauderer* test: 1) factual content and 2) uncontroversial context, we can apply the test to GMO labeling laws to determine the appropriate level of First Amendment scrutiny.

IV. APPLYING *ZAUDERER*—GMO LABELING

A. Factual Content

Whether a product contains material that is GE/GM/GMO is allegedly factual information.[121] It purports to describe how a product was created or produced.[122] But because GE/GM/GMO generally reference processes used to create a product and not a specific element/component like sugar, gluten, etc., understanding whether a product is derived from these processes is dependent on how one defines or interprets the term.[123] This analysis relates to the context of the terms used in GMO labeling laws and what processes are included; something analyzed under the second step of *Zauderer*.

118. *Id*.

119. Nat'l Ass'n of Mfrs., 800 F.3d at 538 (emphasis added) (J. Srinivisan, dissenting).

120. *See Zauderer*, 471 U.S. at 652.

121. Defendants' Memorandum of Law in Support of Their Motion to Dismiss Plaintiffs' Complaint at 11, Grocery Mfrs. Ass'n v. Sorrell, No. 5:14-CV-117 (D. Vt. 2015) (arguing that GM food labeling is uncontroversial because "a disclosure that food was produced with genetic engineering—which is all Act 120 requires—is a *true and objective fact*") (emphasis added).

122. *Fact*, BLACK'S LAW DICTIONARY (10th ed. 2014) (a fact is "[s]omething that actually exists; an aspect of reality.").

123. *Consumer Info about Food from Genetically Engineered Plants*, USDA, https://perma.cc/8R77-XB8 (archived July 26, 2018).

B. Uncontroversial Context

A survey of various definitions of what constitutes GE/GM/GMO sufficient to trigger labeling requirements demonstrates the highly controversial context of using any of these terms on product labels. The first step in understanding the controversial nature of these terms requires a brief overview of the scientific processes at issue. Then we can dig into the state proposed labeling laws as well as the new federal law to see how the conflicting way in which they treat the terms and processes exemplifies the controversial context.

1. Genetic Manipulation Methods

The most controversial group of genetic manipulation methods is genetic engineering. The dictionary defines genetic engineering as "the group of applied techniques of genetics and biotechnology used to cut up and join together genetic material and especially DNA from one or more species of organism and to introduce the result into an organism in order to change one or more of its characteristics."[124] Genetic engineering has progressed over the last twenty years to the point that the controversy surrounding a GE, GM, and GMO labeling stems from which techniques are sufficient to trigger a labeling requirement. The following are the leading techniques for gene manipulation. As we will see, some are considered genetic engineering and some are not. The following list is not exhaustive but instead serves to give background on techniques that will be used in comparing the definition of genetic engineering within various state proposals.

i. Recombinant DNA

The discovery of recombinant DNA (rDNA) technology became the foundation of the genetic engineering era. Their techniques facilitate the combination of DNA from two different species and the insertion of that DNA into a host organism.[125] This technological breakthrough led to the mass production of synthetic human insulin.[126] In the agricultural realm, this technology significantly

124. *Genetic Engineering*, MERRIAM-WEBSTERS DICTIONARY, https://perma.cc/9FN9-Z572 (archived July 26, 2018).

125. ANTHONY J.F. GRIFFITHS, ENCYCLOPEDIA BRITANNICA, RECOMBINANT DNA TECH. (2018), https://perma.cc/MR43-8EXE (archived Oct. 16, 2018).

126. Nabih A. Baeshen et al., *Cell Factories for Insulin Production*, BIOMED CENTRAL (2014), https://perma.cc/4DQF-XK94 ("The first licensed drug produced using recombinant DNA technology was human insulin, which was developed by Genentech and licensed as well as marketed by Eli Lilly in 1982.").

expedited the introduction of new crop varieties.[127] More importantly, rDNA expanded the transferable gene pool by allowing scientists to select desirable genes outside of plant species.[128] Simply put, rDNA technology is the process of targeting desirable DNA strands from different species and copying and pasting them into the desired species to exhibit a specified trait.[129] This technology has allowed for desirable trait selection and integration with more precision than conventional breeding practices.[130]

ii. Cell Fusion

Cell fusion is also known as somatic cell fusion or protoplast fusion and is not considered an rDNA technique.[131] The technique involves the laboratory process of dissolving cell walls and combining the remaining protoplasts from two different plants to create a new hybrid.[132] The new protoplast effectively combines the DNA from the two target plants.[133] This technique is not as precise as rDNA because it is unable to target and replicate specific genes.[134] Transgenic cell fusion utilizes protoplasts from two different species creating a hybrid from species that could not be crossbred.[135] Cisgenic cell fusion utilizes the same technique but combines two protoplasts from cells of the same plant or within the same species.[136]

127. *See* NAT'L ACAD. OF SCIS., GENETIC ENGINEERING OF PLANTS: AGRICULTURAL RESEARCH OPPORTUNITIES AND POLICY CONCERNS (Leslie Roberts ed., 1984).

128. *See id*. at 31.

129. *See* GRIFFITHS, *supra* note 125.

130. MOLLY FITZGERALD-HAYES & FREIDA REICHSMAN, DNA AND BIOTECHNOLOGY 337 (3rd ed. 2009); NAT'L ACAD. OF SCIS., SAFETY OF GENETICALLY ENGINEERED FOODS: APPROACHES TO ASSESSING UNINTENDED HEALTH EFFECTS 46 (2004) [hereinafter SAFETY OF GENETICALLY ENGINEERED FOODS] ("conventional breeding involves transferring thousands of unknown genes with unknown function along with the desired genes.").

131. KARL KAMMERMEYER & VIRGINIA L. CLARK, GENETIC ENGINEERING FUNDAMENTALS: AN INTRODUCTION TO PRINCIPLES AND APPLICATIONS 156 (1989).

132. *Id*.

133. *See* NAT'L ACAD. OF SCIS., *supra* note 127, at 36.

134. *Id*. at 21.

135. *See* Teodoro Cardi, *Cisgenesis and Genome Editing: Combining Concepts and Efforts for a Smarter Use of Genetic Resources in Crop Breeding*, 135 PLANT BREEDING 139 (2016) (explaining transgenic hybrids).

136. *See id*. (explaining cisgenic hybrids).

iii. Mutagenesis

Mutagenesis involves inducing random mutations within a plant's genome and then selecting desirable variations in the resulting mutations.[137] Again, this technique is random and is unable to precisely select genes for transfer or selection.[138] The most common way of inducing random mutations is through the direct application of radiation or chemicals to the plant.[139] This process is exercised under extreme care because the chemical mutagens are highly carcinogenic.[140] Surprisingly, while a genetic manipulation method, this technique is grouped with traditional breeding methods and *not* included in processes regarded as genetic engineering.[141] 2,965 crop cultivars have been created in the last forty years through chemical and radiation induced mutagenesis.[142]

Advances in genetic technology have led to more precise methods of mutation breeding that do not require chemicals or radiation to induce mutations. These techniques, known as site-directed mutagenesis, are able to target specific DNA sequences for mutation.[143] One such technique is oligonucleotide-mediated mutagenesis (OMM).[144] OMM facilitates site-specific mutations without using a delivery vector or introducing any foreign DNA.[145] Because of their targeted function, techniques like OMM are commonly grouped into an emerging category called gene editing.[146]

137. NUCLEIC ACIDS IN CHEMISTRY AND BIOLOGY 191 (G. Michael Blackburn et al. eds. 3rd ed. 2006).

138. *Id*.

139. Yusuff Oladosu et al., *Principle and Application of Plant Mutagenesis in Crop Improvement: A Review*, 30 BIOTECHNOLOGY & BIOTECHNOLOGICAL EQUIP. 1, 2 (2016).

140. Per Sikora et al., *Mutagenesis as a Tool in Plant Genetics, Functional Genomics, and Breeding*, INT'L J. PLANT GENOMICS 1, 2 (2011).

141. "Induced-mutation crops in most countries (including the United States) are not regulated for food or environmental safety, and breeders generally do not conduct molecular genetic analyses on such crops to characterize the mutations or determine their extent." SAFETY OF GENETICALLY ENGINEERED FOODS, *supra* note 130, at 28; Marieke Vos, *It's Labeled Organic, But Its Genes Were Scrambled With Gamma Rays*, EPOCH TIMES (Feb. 11, 2014), https://perma.cc/BSN7-E5F5 (emphasis added).

142. Sikora et al., *supra* note 140, at 2.

143. K. Osakabe et al., *Site-Directed Mutagenesis in Higher Plants, in* PLANT MUTATION BREEDING AND BIOTECHNOLOGY 523, 524 (Q.Y Shu et al. eds., 2011) (ebook) (explaining site-directed mutagenesis in depth).

144. Didier Breyer et al., *Genetic Modification Through Oligonucleotide-Mediated Mutagenesis. A GMO Regulatory Challenge?*, ENVTL. BIOSAFETY RES. 1, 3 (2009).

145. *Id*. at 4.

146. Jeffrey D. Wolt et al., *The Regulatory Status of Genome-Edited Crops*, 14 PLANT BIOTECHNOLOGY J. 510, 510 (2016).

iv. Gene Editing

New techniques are referenced in the gene editing category mainly to distinguish them from recombinant or cell fusion processes. These techniques manipulate the individual genome in a way that triggers different gene expressions within the plant itself.[147] Techniques in this emerging area utilize site-directed nucleases (SDNs) that can be programmed to target specific genes for insertion, replacement, or deletion.[148] Some of these processes utilize rDNA to accomplish the gene editing, but some do not.[149] Importantly, these new processes do not involve the introduction or combination of foreign DNA, but instead they simply manipulate different expressions through "cutting" certain sequences within the plant's genome itself.[150]

This baseline understanding of the classification of techniques generally related to genetic engineering allows us to examine the various state proposals on GMO labeling. The varying degrees of inclusiveness of the state proposed definitions highlight the controversies surrounding GE/GM/GMO labels.

2. Proposed State Labeling Laws

There are three controversial points with respect to the state proposals. The first controversial point is how to determine whether a product was "produced" with genetic engineering in a way sufficient to trigger a labeling requirement. Many of the state proposals defined genetic engineering as "a process by which a food is produced from an organism or organisms in which the genetic material has been changed . . . "[151], through the techniques listed.[152] The controversy is whether a product produced from an animal that has been fed genetically engineered feed would or should trigger a labeling requirement. Many state proposals simply do

147. *Id.*

148. *Id.* at 510-11 (commonly used engineered nucleases for SDNs are EMNs, ZFNs, TALENs, and CRISPR/Cas9).

149. *Id.* at 511.

150. *See e.g.*, Antonio Regalado, *Here Come the Unregulated GMOs*, MIT TECH. REV. (Apr. 15, 2016), https://perma.cc/E3HA-VBYN.

151. H.R. 2462, 52nd Leg., 1st Reg. Sess. (Ariz. 2015); H.R. 1370, 55th Leg., 1st Sess. (Okla. 2015).

152. *See* H.R. 92, 29th Leg. (Ala. 2015); S. 416, 2015 Reg. Sess. (Fla. 2015); S. 734, 99th Gen. Assemb., Reg. Sess. (Ill. 2015); S. 264, 119th Gen. Assemb., 1st Reg. Sess. (Ind. 2015); H.R. 3242, 189th Gen. Court, (Mass. 2015); H.R. 351, 89th Sess. (Minn. 2015); S. 485, 2015-2016 Leg., Reg. Sess. (N.Y. 2015); S. 557, 2015 Gen. Assemb. (R.I. 2015); S. 696, 109th Gen. Assemb. (Tenn. 2015); H.R. 3499, 84th Leg. (Tex. 2015); S. 91, 216th Leg., Reg. Sess. (N.J. 2014); H.R. 112, 2013-14 Leg. Sess. (Vt. 2014); H.R. 6527, 2013 Gen. Assemb., Reg. Sess. (Conn. 2013); Ballot Measure No. 37 (Cal. 2012).

not clarify the point; meaning that products derived from animals fed GE feed would not qualify because the product would be produced from the animal, but the animal's genetic material would not have been changed via the listed techniques.[153] Others explicitly state that a food would be considered genetically engineered if the food were derived from an animal fed GE feed.[154] The remaining states explicitly exclude products from animals that were fed GE feed.[155]

The next controversy revealed by comparing proposed state laws relates to the treatment of cell fusion in the definition of genetic engineering. The focus of this controversy is whether transgenic cell fusion should be included in a definition of genetic engineering while cisgenic cell fusion is excluded. Some states did not distinguish between transgenic and cisgenic cell fusion, thereby including by implication both techniques in their definition of genetic engineering.[156] But the majority of states specifically excluded cisgnenic cell fusion from the definition of genetic engineering.[157] These labeling statutes allegedly advise the consumer

153. *See e.g.*, H.R. 2462, 52nd Leg. 1st Reg. Sess. (Ariz. 2015).

154. S. 875, 28th Leg., Reg. Sess. (Haw. 2015) ("food shall be considered to have been produced with a genetically engineered material if: . . . [t]he animal from which the food is derived has been fed genetically engineered material."); S. 478, 127th Leg., 1st Reg. Sess. (Me. 2015) ("means food containing . . . any product made from animals fed genetically engineered food."); Ballot Measure No. 27 (Or. 2002).

155. H.R. 1370, 55th Leg., 1st Sess. (Okla. 2015) ("A food product derived from an animal is not considered misbranded if the animal was not genetically engineered but was fed genetically engineered feed."); S. 557, 2015 Leg., (R.I. 2015) ("A food product derived from an animal is not considered mislabeled if the animal was not genetically engineered but was fed genetically engineered feed."); S. 696, 109th Gen. Assemb., (Tenn. 2015) ("A food product derived from an animal shall not be considered misbranded if the animal was not genetically engineered but was fed genetically engineered food."); H.R. 3499, 84th Leg., (Tex. 2015) ("This chapter does not apply to: food consisting entirely of an animal, or derived entirely from an animal, that has not been produced with genetic engineering, regardless of whether the animal has been fed or injected with any food, drug, or other substance produced with genetic engineering."); H.R. 112, 2013-14 Leg. Sess. (Vt. 2014) ("Food consisting entirely from an animal which has not itself been produced with genetic engineering, regardless of whether the animal has been fed or injected with any food or drug produced with genetic engineering.").

156. S. 875, 28th Leg., Reg. Sess. (Haw. 2015) (without an explicit qualifier to cell fusion, interpretations differ as to whether general statements such as "by *means* that are not possible under natural conditions or processes" operate to exclude cisgenic cell fusion (emphasis added)); *see also* H.R. 147, 86th Gen. Assemb., Reg. Sess. (Iowa 2015); H.R. 168, 98th Gen. Assemb., 1st Reg. Sess. (Mo. 2015).

157. *See e.g.*, H.R. 92, 29th Leg., (Alaska 2015) ("genetic engineering means a process whereby the genetic material of an organism or organisms is changed through: . . . fusion of cells, including protoplast fusion . . . *where donor cells or protoplasts do not fall within the same taxonomic group*" (emphasis added)).

whether a product was created using a genetic engineering process.[158] If both transgenic and cisgenic cell fusion utilize the same process in altering genetic material, then why would one process be considered genetic engineering, while the other is not?[159]

Perhaps surprisingly, the most likely answer is that legislators in the majority of states aimed to prevent the possibility that a product labeled USDA Organic would also be required to carry a label "produced with genetic engineering." Though initially excluded from organic standards, recent USDA policy guidance determined that cisgenic cell fusion is an allowable breeding method under the USDA National Organic Program (NOP).[160] Organic advocates see the irony in USDA's guidance and generally disfavor the use of all laboratory cell fusion techniques in organic production.[161] This stance stems from the International Federation of Organic Agriculture Movements' (IFOAM) declaration that cisgenic cell fusion is genetic engineering.[162] Therefore, the distinctions within cell fusion techniques and their classification as GE are highly controversial.

The final controversial issue confronts genetic engineering in relation to newer technologies such as gene editing. Some state proposals explicitly included some forms of gene editing techniques.[163] Other proposals are silent. However, it can be argued that the blanket term "in vitro nucleic acid techniques" would be broad enough to include some gene editing techniques. But, it may be troublesome to imply the intent to include these new techniques when the USDA has declined

158. *See e.g.*, H.R. 2462, 52nd Leg., 1st Reg. Sess. (Ariz. 2015) ("'genetic engineering' means a *process* by which a food is *produced* from" (emphasis added)).

159. *But see generally* HENK J. SCHOUTEN ET AL., EUR. MOLECULAR BIOLOGY ORG., CISGENIC PLANTS ARE SIMILAR TO TRADITIONALLY BRED PLANTS 750 (2006), https://perma.cc/UK9J-UQ5A (arguing that cisgenic cell fusion should be treated differently than transgenic cell fusion).

160. The regulations exclude "cell fusion" generally from organic standards. 7 C.F.R. § 205.105(e) (2019). However, a 2013 USDA policy memorandum clarified that cisgenic cell fusion is an allowable method in organic production. USDA Memorandum on Cell Fusion Techniques Used in Seed Production (Feb. 1, 2013)("The NOP concludes that cell fusion techniques are an excluded method when the donor cells/protoplasts do not fall within the same taxonomic plant family.").

161. *See* Donald Sutherland, *Organic Mutagenic/Cell Fusion Hybrid Seeds Are Genetically Engineered*, FOOD SAFETY NEWS (May 15, 2014), https://perma.cc/U7AA-D7DU.

162. *See id.* ("In the IFOAM, the product/process argument has come to one conclusion: Cisgenic cell fusion in seed production is GE and should be banned.").

163. S. 875, 28th Leg., Reg. Sess. (Haw. 2015) ("gene deletion and doubling . . . changing the positions of genes"); S. 734, 99th Gen. Assemb., Reg. Sess. (Ill. 2015); H.R. 3242, 189th Gen. Court. (Mass. 2015).

to regulate products created by these techniques in the same manner that they have regulated other GE products.[164]

Further, some subcategories of these new genetic editing techniques are simply improvements on traditional breeding methods, such as OMM (directed mutagenesis).[165] As noted above, mutagenesis is considered a traditional breeding method and is not classified as genetic engineering.[166] State proposals that specifically exclude traditional breeding methods, or specifically mutagenesis, would not include OMM in the definition of genetic engineering.[167] Further, states that don't explicitly identify a process like OMM will exclude it by implication because the general classifications such as "in vitro nucleic acid techniques," "techniques that use vector systems," and "techniques involving direct introduction" do not characterize OMM.[168] Additionally, some state proposals claim to exclude mutagenesis techniques but explicitly include gene deletion and gene doubling. In those states, emerging techniques such as OMM could potentially be classified as both genetic engineering and not genetic engineering.[169]

With an understanding of the controversies present amongst the various state proposals, an examination of the federal law that was passed to preempt all of the state legislation and acts to exemplify the controversy is necessary.

3. Federal Law

The new federal law does not use the terms GE/GM/GMO, but instead requires labeling of foods that are made via "bioengineering."[170] Bioengineering is used interchangeably with genetic engineering.[171] However, the federal definition is much less inclusive than many of the state proposals:

164. *See* Regalado, *supra* note 150.

165. Sutherland, *supra* note 161.

166. Mutagenesis is another method allowed in organic production. Organic advocates have conveyed to the USDA that they believe mutagenesis is a form of genetic modification and should be excluded from the NOP. *See* Letter from Anthony Bronson to USDA National Organic Program (July 4, 2007) (on file with author).

167. *See e.g.*, S. 875, 28th Leg., Reg. Sess. (Haw. 2015) ("excluding means consisting exclusively of . . . mutagenesis").

168. *See* Breyer et al., *supra* note 144, at 6 (arguing that OMM does not fit in the definition of GMO under European Union directives).

169. *Id.*

170. 7 U.S.C. § 1639(b) (2018).

171. *Bioengineering*, MERRIAM WEBSTER DICTIONARY, https://perma.cc/7HQJ-CTN7 (archived July 26, 2018).

> Bioengineering. The term "bioengineering", and any similar term, as determined by the Secretary, with respect to a food, refers to a food–
>
> (A) that contains genetic material that has been modified through in vitro recombinant deoxyribonucleic acid (DNA) techniques; and
>
> (B) for which the modification could not otherwise be obtained through conventional breeding or found in nature.[172]

The federal definition re-emphasizes all of the controversial elements reflected in the state proposal comparison.[173]

According to the federal definition, a product must "contain" modified genetic material as opposed to being "produced" from an organism with modified genetic material.[174] Further, neither transgenic nor cisgenic cell fusion is even mentioned as a process that triggers labeling.[175] Finally, the federal definition limits the techniques to only in vitro rDNA methods, clearly excluding newer gene editing technologies that don't use rDNA.[176]

This Article does not argue which definitions or processes ought to be included,[177] but instead, presents the evidence to show how the terms used in a process-based labeling regime like GMO labeling are controversial. The key to this paper is the variation in state proposals, and how they square with the ultimate federal law demonstrating the controversial context of the under-or-over inclusive nature of the text on GE/GM/GMO labels.

This is especially troubling given that GMO labeling allegedly attempts to inform the consumer of how the product was created. After the above discussion, it is difficult to see how these terms could do anything more than confuse the consumer. Though the words themselves seem simple, the context surrounding these terms, as they will appear on a product label, depend on controversial interpretations and definitions. There is no universal agreement on what processes should be included as GE with respect to informing consumers on the issue. Consumers are even less informed on these issues and likely would be just as concerned with knowing a product was created through mutagenesis as one with a more precise method that is truly considered GE.

172. 7 U.S.C. § 1639 (2018).

173. VT. STAT. ANN. tit. 9, § 3042(4) (2017).

174. 7 U.S.C. § 1639(1)(A) (2018).

175. *See generally* 7 U.S.C. § 1639 (2018).

176. 7 U.S.C. § 1639(1) (2018).

177. In fact, this author believes that using terms like GMO and GE are too abstract to put on labels to adequately inform consumers on what they believe they are being informed about.

Though alleging factual information, the speech itself used in mandatory GMO labeling laws is presented in a highly controversial context. Therefore, GMO labeling laws fail the threshold *Zauderer* test and are not afforded less exacting scrutiny.[178]

V. INTERMEDIATE SCRUTINY—GMO LABELING

Without the benefit of less exacting scrutiny, mandatory GMO labeling laws must satisfy intermediate scrutiny using the four-prong test detailed in *Central Hudson*.[179] The test begins with a threshold determination of whether the speech is misleading.[180] If the speech is misleading, the analysis ends because misleading speech is not afforded constitutional protection.[181] If the speech is not misleading, then the remaining three substantive prongs must be satisfied: 1) the government must assert a substantial interest; 2) the compelled speech must directly advance the substantial interest; 3) the government's regulation through compelled speech must be no more extensive than necessary to advance the interest.[182]

A. Are GMO Labels Misleading?

Because misleading speech is not protected under the First Amendment, it follows that the government cannot compel such speech. *Central Hudson* defines misleading speech as "commercial messages that do not *accurately* inform the public about lawful activity"(emphasis added).[183] Indeed, the government's concern with misleading speech is not to compel it, but to restrict it and thereby promote the flow of only accurate information to consumers.[184] Unfortunately, mandatory GMO labeling directly contradicts the government's goal and is a contributing factor to consumer confusion regarding GMOs.

The analysis in Section III of this article, regarding the controversial nature of the abstract terms used in GMO labeling, demonstrates that the compelled speech at issue fails to accurately inform consumers. Therefore, mandatory GMO

178. *See generally* Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 651 (1985).

179. Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y., 447 U.S. 557, 566 (1980).

180. Ocheesee Creamery, LLC v. Putnam, 851 F.3d 1228, 1235 (11th Cir. 2017) (citing *Cent. Hudson Gas & Elec. Corp.*, 447 U.S. at 566).

181. *Putnam*, 851 F.3d at 1235.

182. *Id.* at 1235-36.

183. *Cent. Hudson Gas & Elec. Corp.*, 447 U.S. at 563 (emphasis added).

184. Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 638 (1985).

labeling laws using these controversial terms qualify as misleading speech under *Central Hudson* and consequently fail intermediate scrutiny. But, even if the compelled speech at issue is not considered misleading *per se*, mandatory GMO labeling laws fail intermediate scrutiny under the remaining three substantive prongs.

B. Substantial Interest

The most recognizable interests implicated in GMO labeling laws are consumer right to know and consumer preference. Unfortunately, these interests alone do not qualify as a substantial interest.[185] For good reason, because if consumer right to know was a substantial interest in and of itself, there would be no limit to what the government could compel companies to place on their label against their will.[186] But some confusion has surrounded the issue, particularly because of the alleged treatment of consumer interest as a substantial interest in *American Meat Institute v. United States Department of Agriculture (AMI)*.[187] While consumer interest was one such interest put forward in *AMI*, the court reasoned "several aspects of the government's interest in country-of-origin-labeling for food combine to make the interest substantial."[188] Therefore, consumer interest alone continues to be an insufficient substantial interest to satisfy *Central Hudson*.

Here, there are no other interests legitimately presented in the mandatory GMO labeling argument that could raise consumer interest to a substantial interest. Groups in support of GMO labeling have alleged public health and safety as a government interest.[189] But, unlike in *AMI* where consumer interest combined with legitimate public health concerns backed by scientific evidence, there is no scientific evidence that supports a legitimate health and safety concern.[190] Without

185. Int'l Dairy Foods Ass'n v. Amestoy, 92 F.3d 67, 74 (2d Cir. 1996) ("consumer curiosity alone is not a strong enough state interest to sustain the compulsion of even an accurate, factual statement.").

186. *Id.*; Adler, *supra* note 38, at 442-43(explaining why consumer right to know cannot qualify as a substantial interest under *Central Hudson*); Jeffrey S. Wettengel, *Reconciling the Consumer "Right to Know" with the Corporate Right to First Amendment Protection*, J. BUS. & TECH. L. 325, 346 (2017).

187. Am. Meat Inst. v. USDA, 746 F.3d 1065, 1073-74 (D.C. Cir. 2014), *aff'd en banc* 760 F.3d 18 (D.C. Cir. 2014).

188. *Am. Meat Inst.*, 760 F.3d at 23.

189. *See, e.g.*, Grocery Mfrs. Ass'n v. Sorrell, 102 F. Supp. 3d 583, 631 (D. Vt. 2015)(No: 5:14-cv-00117).

190. *See generally,* Comm. on Genetically Engineered Crops et al, *Genetically Engineered Crops: Experiences and Prospects* 33 (2016).

more, the consumer interest at issue in GMO labeling is simply "idle curiosity" that does not qualify as a substantial interest.[191]

C. Directly Advance

Assuming consumer interest did qualify as a substantial interest; mandatory GMO labeling laws do not directly advance that interest. As discussed earlier in this Article, if consumers wish to know about GE or GMOs, mandatory labeling is simply a subterfuge. This type of controversial speech cannot directly advance consumers' right to know if consumers do not understand what is being conveyed by the speech. Further, the government cannot utilize a tangential argument or "mere speculation or conjecture; rather it must demonstrate that the harms it recites are real and that its restrictions will in fact alleviate them *to a material degree*."[192] There is no concrete evidence, regardless of consumers demanding a right to know, that mandatory GMO labeling will increase the amount of accurate information conveyed to consumers. If public health were asserted as an additional interest, mandatory labeling would still fail to directly advance that interest. Without scientific evidence to substantiate health and safety claims surrounding GMOs, and the fact that the abstract terms are meaningless when trying to identify specific genetic processes, there is not a cogent argument that compelled GMO labeling directly advances either consumer right to know or public health and safety.

D. No More Restrictive Than Necessary

The final prong requires the government's regulation through compelled speech be narrowly tailored to achieve the stated goal.[193] This does not mean the regulation *must* be the least burdensome, but the availability of less-burdensome alternatives is a relevant consideration.[194] Here, less-burdensome alternatives demonstrate that mandatory GMO labeling is not narrowly tailored to fulfill the objective of consumer interest. Voluntary labeling initiatives currently provide avenues for consumer preference.[195] This gives interested consumers a choice without burdening the entire food industry with expensive re-labeling requirements. Further, consumer education programs should be the focal point for such highly contested issues. As explained previously in this Article, lack of

191. *See* Robert Post, *Compelled Commercial Speech*, 117 W. VA. L. REV. 867, 891 (2015) (explaining that consumer curiosity supported by other legitimate interests (legitimate curiosity) may qualify as a substantial interest but idle curiosity does not).

192. Edenfield v. Fane, 507 U.S. 761, 770-71 (1993) (emphasis added).

193. Ballen v. Redmond, 466 F.3d 736, 742 (9th Cir. 2006).

194. *Id.* (emphasis added).

195. *See* Wettengel, *supra* note 186, at 351 (explaining the Non-GMO Project voluntary labeling initiative).

information and misinformation have contributed to the use of terms such as GMO and GE that do not convey accurate information to consumers. Understanding the processes and techniques behind GE and GMOs will promote consumer interest in the subject and may also help reduce the stigma associated with the technology.

The compelled speech at issue in GMO labeling laws fails the threshold *Central Hudson* prong. But, even if the speech is not characterized as misleading for purposes of this analysis, it still fails to satisfy all of the three substantive prongs. Thus, the abstract terms compelled through mandatory GMO labeling laws cannot be justified under intermediate scrutiny, and compelling such speech violates the First Amendment of the Constitution.

VI. CONCLUSION

GMO labeling laws remain highly controversial in regard to both the underlying safety of foods produced through these processes and the very terms used to describe those processes on a product label. The fact of the matter is these controversies are unlikely to subside in the near future and may even be compounded as new technologies are brought to market. The attempted standardization via the federal law will likely be challenged by anti-GMO groups due to its alleged under inclusive nature for techniques triggering a labeling requirement. The problem is, even with a broader definition in the federal law, GMO advocates can challenge on the same grounds for being over inclusive. Therefore, the abstract terms used in mandatory GMO labeling laws are simply too controversial to pass constitutional scrutiny as compelled speech. Any law attempting to compel such speech will not be afforded less exacting scrutiny and will ultimately fail intermediate scrutiny.

This is where you are expecting some grand solution, right? Well, the solution is mandatory GMO labeling laws are simply not providing information to the consumer as they allegedly do. One can envision an uncontroversial disclosure, such as the specific process used to create the product, but a reasonable consumer likely has no understanding of the specific techniques used to create their food and why they should classify certain techniques as GE. The government or a company mandating its view of what GE consists of is equally unlikely to help the consumer. One can even imagine the surprise a consumer would find when comparing an organic label showing it was produced with radiation induced mutagenesis with a GMO product label showing it was produced via precision gene editing.

The bottom line is mandatory GMO labeling laws utilizing controversial terms like GE, GM, GMO, and bioengineered violate the First Amendment. Consumers are misled into believing they are making informed decisions when the "informed" nature of those decisions rests on controversial and stigmatized terms.

If information is truly what the consumer desires, mandatory GMO labeling is simply a distraction. For the captive audience truly concerned about GE/GM/GMO food, the rise in voluntary third-party certifications provide the most efficient and accurate avenue to fulfill consumer choice needs. A world without mandatory GMO labeling promotes growth and development in third-party certifications while allowing flexibility to address future concerns related to biotechnology.