

ISSUE BRIEF

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A Q & A on the Mandatory Labeling of Genetically Engineered Foods

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This week, the House of Representatives is expected to consider the Safe and Accurate Food Labeling Act of 2015,¹ which would prohibit states from mandating the labeling of genetically engineered foods, also known as genetically modified or bioengineered food. Neither federal, state, nor local governments should block consumers from getting information on food. However, this is far different than *mandating* the labeling of genetically engineered food.

The following questions and answers provide some background on genetically engineered food, address whether the labeling of genetically engineered foods should be mandatory, and analyze whether the federal government should preempt states on mandatory labeling. This paper does not address other aspects of the bill.

What Is the Genetic Engineering of Food?

For thousands of years, humans have changed the genetic makeup of their food, including introducing genes from other species. Genetic engineering is just one method that humans can use to change the genetic makeup of food. Since the 1990s, genetically engineered food has been in the U.S. food supply. Through the genetic engineering process, scientists

can more efficiently and precisely introduce desired traits into a crop plant. The Food and Drug Administration (FDA) has explained:

Most, if not all, cultivated food crops have been genetically modified. Data indicate that consumers do not have a good understanding that essentially all food crops have been genetically modified and that bioengineering technology is only one of a number of technologies used to genetically modify crops.²

Is Genetically Engineered Food Different from Non-Genetically Engineered Food?

If food has been genetically engineered, this merely describes the technique by which the food was developed. Genetic engineering does not necessarily mean that the particular food will be different from its traditional counterpart in any material way, such as in safety or nutrition. If there were material differences, the FDA would require this information be communicated to consumers.³ This includes material differences that are *positive* differences, such as genetically engineered soybeans that are high in oleic acid, which produces healthier cooking oils.⁴

Are Genetically Engineered Foods Safe?

Some individuals are concerned about the safety of genetically engineered foods, and this concern should not be ignored. The science should consistently be reviewed, and the best evidence should inform policy debates.

This paper, in its entirety, can be found at <http://report.heritage.org/ib4440>

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According to the Genetic Literacy Project, “Every major scientific body and regulatory agency in the world has reviewed the research about GMOs [genetically modified organisms] and openly declared crop biotechnology and the foods currently available for sale to be safe.”⁵ From the World Health Organization to the National Academy of Sciences, there is wide agreement regarding safety.⁶

In 2001, discussing the policy it developed in 1992, the FDA explained:

The 1992 policy does not establish special labeling requirements for bioengineered foods as a class of foods. The policy states that FDA has no basis for concluding that bioengineered foods differ from other foods in any meaningful or uniform way, or that, as a class, foods developed by the new techniques present any different or greater safety concern than foods developed by traditional plant breeding.⁷

The American Medical Association has concluded:

There is no scientific justification for special labeling of genetically modified foods. Bioengineered foods have been consumed for close to 20 years, and during that time, no overt consequences on human health have been reported and/or substantiated in the peer reviewed literature.⁸

Why Do Scientists Genetically Engineer Food?

Genetically engineered food has incredible benefits and potential. Genetically engineered crops have helped farmers by reducing production costs and by leading to higher yields.⁹ The genetically engineered Rainbow papaya helped to save the papaya industry in Hawaii when it was being devastated by the papaya ringspot virus.¹⁰ Genetically engineered crops can improve the nutritional value of foods and can help developing countries to feed their starving populations.

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1. Safe and Accurate Food Labeling Act of 2015, H.R.1599, 114th Cong., 1st Sess., <https://www.congress.gov/bill/114th-congress/house-bill/1599> (accessed July 21, 2015).
 2. U.S. Food and Drug Administration, “Draft Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Developed Using Bioengineering; Draft Guidance,” January 2001, <http://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm059098.htm> (accessed July 21, 2015).
 3. U.S. Food and Drug Administration, “Statement of Policy—Foods Derived from New Plant Varieties,” May 29, 1992, <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Biotechnology/ucm096095.htm> (accessed July 21, 2015).
 4. Lester M. Crawford, “Regulation of Foods Derived from Plants,” statement before the Subcommittee on Conservation, Credit, Rural Development, and Research, Committee on Agriculture, U.S. House of Representatives, June 17, 2003, <http://www.fda.gov/NewsEvents/Testimony/ucm161037.htm> (accessed July 21, 2015). See also GMO Answers, “Ask Us Anything About GMOs!” Council for Biotechnology Information, <https://gmoanswers.com/ask/are-organisms-being-genetically-modified-benefit-profitability-you-producer-or-benefit-health-me> (accessed July 21, 2015).
 5. Genetic Literacy Project, “GLP Infographic: International Science Organizations on Crop Biotech Safety,” August 27, 2013, <http://www.geneticliteracyproject.org/2013/08/27/glp-infographic-international-science-organizations-on-crop-biotechnology-safety/> (accessed July 21, 2015).
 6. Ibid.
 7. U.S. Food and Drug Administration, “Draft Guidance for Industry.” See also Tim Devaney, “FDA Official: GMO Foods ‘as Safe as’ Other Foods,” *The Hill*, December 10, 2014, <http://thehill.com/regulation/226643-fda-official-gmo-foods-as-safe-as-other-foods> (accessed July 21, 2015).
 8. Genetic Literacy Project, “GLP Infographic.”
 9. National Research Council, “The Impact of Genetically Engineered Crops on Farm Sustainability in the United States,” 2010, http://www.nap.edu/openbook.php?record_id=12804 (accessed July 21, 2015).
 10. Daren Bakst and Scott Blakeman, “Genetic Engineering Could Provide the Solution to Florida’s Citrus Problem,” *The Daily Signal*, September 5, 2014, <http://dailysignal.com/2014/09/05/genetic-engineering-provide-solution-floridas-citrus-problem/>.
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A great example of this potential is Golden Rice. In 1999, rice was genetically engineered to produce beta-carotene, which is critical for the human body in producing Vitamin A.¹¹ Golden Rice was developed to address the critical public health problem plaguing millions of children and pregnant women across the world who suffer from Vitamin A deficiency. According to the World Health Organization, “An estimated 250,000 to 500,000 vitamin A-deficient children become blind every year, half of them dying within 12 months of losing their sight.”¹² Golden Rice has the potential to address this tragic problem.

Does the Public Have a Right to Know Whether Food Has Been Genetically Engineered?

There is no such constitutional or statutorily created right. This point, however, does not answer whether or not the public *should* be provided this information.

Certainly, the government should not block food companies from providing the public information that it demands. In fact, if consumers want information on whether a product is genetically engineered, food companies can—and many already do—disclose this information voluntarily.¹³

Mandatory labeling leads to a different question: Should the government *force* food companies to provide consumers information about whether food has been genetically engineered? The answer is no, as will be explained below. Knowing that food has been genetically engineered, which is just a process, does not inform consumers as to what they are actually eating.

Should There Be Mandatory Labeling?

Genetically engineered food merely describes how food is made, not whether the food is materially

different from food that was not genetically engineered. If the government seeks to impose a requirement on a private party, it should at least demonstrate that the scientific evidence justifies the requirement. With genetically engineered food, the government cannot provide reasonable, much less compelling, support for such a requirement.

A government-mandated label would also likely send a signal to the consumer, whether intended or not, that the government thinks that there is something wrong with genetically engineered food. Ironically, mandatory labeling has been framed as a pro-consumer issue. It is exactly the opposite. Mandatory labeling could be harmful to consumers by misleading them into thinking that genetically engineered food is unsafe for consumption.

In addition, it would impose financial costs on food companies, which inevitably will pass them on to consumers.¹⁴ Even worse, the greatest cost will come from any harm imposed on the further development of genetic engineering to help meet current and future food challenges.

Should the Federal Government Preempt States on Mandatory Labeling?

There is no easy answer to this question. There is no magic formula for deciding when federal preemption of state laws is warranted. However, some factors suggest that this instance may be one of the rare situations in which preemption is appropriate.

Under the Commerce Clause, Congress has the authority to preempt state GMO labeling laws. Even under a narrow interpretation of this power to regulate interstate commerce, Congress would have the power to regulate labeling of interstate goods. This authority, when justified by a narrow reading, then makes it appropriate to ask whether Congress *should* use this power in this instance.

11. To learn more about Golden Rice, see Golden Rice Project, <http://www.goldenrice.org/index.php> (accessed July 21, 2015).

12. World Health Organization, “Micronutrient Deficiencies: Vitamin A Deficiency,” <http://www.who.int/nutrition/topics/vad/en/> (accessed July 21, 2015).

13. For example, see Non-GMO Project, “The ‘Non-GMO Project Verified’ Seal,” <http://www.nongmoproject.org/learn-more/understanding-our-seal/> (accessed July 21, 2015); U.S. Department of Agriculture, “Organic Agriculture,” <http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=organic-agriculture.html> (accessed July 21, 2015); U.S. Food and Drug Administration, “Questions & Answers on Food from Genetically Engineered Plants,” <http://www.fda.gov/food/foodsciencesearch/biotechnology/ucm346030.htm> (accessed July 21, 2015).

14. For more information on costs, see Council for Agricultural Science and Technology, “The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States,” *Issue Paper No. 54*, April 2014, <http://www.cast-science.org/download.cfm?PublicationID=282271&File=1e30b9edc325bd7238e06b551e4a73f4b712TR> (accessed July 21, 2015).

As states develop their own mandatory labeling requirements, they will inevitably create a patchwork of inconsistent laws that will make it difficult for an interstate market in genetically engineered foods to develop. This harm has not yet been realized because none of the state-enacted laws have gone into effect yet. Vermont is the only state that has passed a law that will go into effect soon (July 1, 2016).¹⁵ Connecticut and Maine have passed laws, but they will not go into effect until bordering states take similar action.¹⁶ There will be continued efforts to pass more mandatory labeling requirements across the country.

The mandatory labeling requirements create some unique circumstances that make preemption more appropriate than in most other instances. States with mandatory labeling requirements would be using the power of government to compel speech that will likely be misleading to consumers.¹⁷ States should not force companies to engage in speech that is not justified by the science, including the FDA's own science. It also hurts the development of genetically engineered foods that are critical for the nation and global efforts to counteract malnutrition.

There is one other critical factor. Congress is not seeking to expand government power and restrict freedom. It would actually be ensuring that states seeking to expand government power do not undermine the federal government's *existing* conclusion that labeling should not be required.

Conclusion

Consumers who want to know whether their food has been genetically engineered can make purchasing decisions based on this preference. The government should not take action to force food companies to meet the demands of these consumers at the expense of all consumers and at the risk of misleading them into thinking that something is wrong with genetically engineered food.

The potential of genetic engineering is exciting, but that potential could be hindered by poor government decisions made today.

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15. *Grocery Manufacturers Association et al v. Sorrell et al. United States* (D. Vt.), April 27, 2015, http://ago.vermont.gov/assets/files/Consumer/GE_Food/GE%20district%20court%20decision%2004272015.pdf (accessed July 21, 2015).
 16. Dan Flynn, "State Legislatures Pass on Adopting GMO-Labeling Policies This Year," *Food Safety News*, June 24, 2015, <http://www.foodsafetynews.com/2015/06/states-pass-on-opportunities-to-jump-ahead-of-feds-on-gmo-labeling-policy/> (accessed July 21, 2015).
 17. There might be First Amendment concerns. For example, see Robert Hahn and John Dillard, "Mandated Labeling for Genetically Engineered Foods: Vermont's Legislation Implicates the First Amendment," Washington Legal Foundation *Legal Backgrounder*, May 23, 2014, http://www.wlf.org/upload/legalstudies/legalbackgrounder/052314LB_Hahn.pdf (accessed July 21, 2015).
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