



University of Connecticut
College of Agriculture and Natural Resources

Department of
Plant Science

July 21, 2017

TO: USDA Agricultural Marketing Service

FROM: Carol Auer, Professor Emerita and Research Professor, University of Connecticut

RE: Comments on Implementation of the National Bioengineered Food Disclosure Standard Law

Please find below responses to questions regarding implementation of the National Bioengineered Food Disclosure Standard Law (GMO food labeling law). I am Professor Emerita in the Department of Plant Science at the University of Connecticut. My research program focuses on crop gene flow and ecological risk. In the past 15 years, I have provided many lectures, courses, and workshops on risk analysis and genetically engineered crops to university undergraduates, government officials, and the public. I appreciate the opportunity to comment on the food labeling standards being developed by the Agricultural Marketing Service.

1. What terms should AMS consider interchangeable with ‘bioengineering’? (Sec. 291(1))

Only one word or phrase should be used across all packaging and products to reduce confusion and misinformation. In the past 20 years, the most popular phrases have been ‘genetically engineered’ and ‘genetically modified’. However, the term ‘bioengineered’ can become an industry standard.

2. Which breeding techniques should AMS consider conventional breeding? (Sec. 291(1)(B))

Any novel trait (e.g. insect resistance, delayed ripening) created using one or more laboratory methods (e.g. recombinant DNA, cell transformation, tissue culture, gene editing) should be recognized in food products through labeling. More specifically, cis-genic modifications and gene editing techniques are distinct from conventional breeding because they require genetic manipulation of plant cells in the laboratory. Bioengineering is distinct from conventional breeding.

3. Which modifications should AMS consider to be found in nature? (Sec. 291(1)(B))

Only conventional breeding through sexual crosses (male pollen and female ovules) with two parental lines should be treated as conventional breeding. The term ‘found in nature’ is meaningless since just about any plant trait could theoretically evolve with selection pressure over enough time (e.g. herbicide resistance, insect resistance, drought tolerance). Attempts to conflate conventional breeding with bioengineering has no scientific basis and will decrease consumer confidence in labeling.

4. Will AMS require disclosure for food that contains highly refined products, such as oils or sugars derived from bioengineered crops? (Sec. 291(1)(A))

At present, tracking of GE food ingredients is largely done through contracts and a ‘paper trail’ rather than laboratory testing. Thus, all food ingredients should be labeled. This inclusive approach is consistent with most other countries, reduces the complexity of labeling for multinational companies, and supports US food exports.

5. Although the Law states that the definition of bioengineering shall not affect any other definition, program, rule, or regulation of the Federal government, could there be potential areas of confusion between the definition of bioengineering as used in the Law and others similar terms used by the Federal government? If so, what are the potential remedies that could be added to this regulation to alleviate any confusion between this definition and others by the Federal government? (Sec. 292(b))

USDA AMS should choose one term and educate the public regarding its definition in food labels.

6. Meat, poultry, and egg products are only subject to a bioengineered disclosure if the most predominant ingredient, or the second most predominant ingredient if the first is broth, stock, water, or similar solution, is subject to the labeling requirements under FFDCA. How will AMS determine the predominance of ingredients? (Sec. 292(c))

No comment.

7. How should AMS craft language in the regulations acknowledging that animals consuming bioengineered feed are exempt from the disclosure requirements as bioengineered solely because they fed on bioengineered feed? (Sec. 293(b)(2)(A))

No comment.

8. What is the amount of a bioengineered substance present in a food that should make it be considered bioengineered? (Sec. 293(b)(2)(B))

Ingredients should be labeled if they contain 0.9% or higher content from genetically engineered crops or animals. While 0.9% is an arbitrary value, it is consistent with other countries (e.g.

European Union countries) and will simplify labeling for multinational food companies and exporters.

9. Should AMS consider more than one disclosure category? (Sec. 293(b)(2)(D))

There should be one standard (e.g. 0.9%) at which all ingredients would be labeled. The primary consideration should be clear, consistent consumer information.

10. What other factors or conditions should AMS consider under which a food is considered a bioengineered food? (Sec. 293(b)(2)(C))

No comment.

11. Could AMS consider whether a type of food is considered a bioengineered food under the determination process? (Sec. 293(b)(2)(C))

All foods and dietary supplements should be included in the labeling regulations.

12. If a manufacturer chooses to use text to disclose a bioengineered food, what text should AMS require for a text disclosure? (Sec. 293(b)(2)(D))

The language approved by the State of Vermont is acceptable. Standardization in the wording and placement on food packages is critical to enhancing consumer confidence. The best location for the words would be the food nutrition panel because many US consumers are already familiar with this label.

13. If a manufacturer chooses to use a symbol to disclose a bioengineered food, what symbol should AMS require for disclosure? (Sec. 293(b)(2)(D))

There should be only one symbol allowed for foods or food ingredients. The effectiveness of this approach can be seen with the Non-GMO Project symbol.

14. If a manufacturer chooses to use an electronic or digital link to disclose a bioengineered food, what requirements should AMS implement for an electronic or digital link disclosure? (Sec. 293(b)(2)(D))

No comment.

15. Should AMS specify in the regulations the type of electronic or digital disclosure manufacturers, e.g. QR code, can use to disclose bioengineered food? What steps should AMS take if an electronic or digital disclosure method becomes obsolete? (Sec. 293(b)(2)(D))

There should be one standard disclosure method for all companies. Again, the overriding concern is consumer confidence and transparency.

16. What kind of text, symbol, or electronic or digital disclosure should AMS require for bioengineered food that is not purchased from a grocery store shelf, such as food for sale in bulk (such as fresh produce in a bin or fresh seafood at a fish counter), in a vending machine, or online? (Sec. 293(b)(2)(D))

The unified symbol should be displayed next to the food item (e.g. inside the seafood counter next to the engineered salmon fillets).

17. The Law offers special provisions for disclosure on small or very small packages. How should AMS define very small or small packages? (Sec. 293(b)(2)(E))

Package size is irrelevant given that most companies will give a QR code or symbol. Please note that food manufacturers have managed to put very small 'USDA Organic' symbols on their products because it enhances the value of their product to some consumers.

18. What are the reasonable disclosure options AMS should provide for food contained in very small or small packages? (Sec. 293 (b)(2)(E))

As mentioned in #17, disclosure requirements for small packages can be met through a QR code or small symbol.

19. How should AMS define small food manufacturers? (Sec. 293(b)(2)(F))

All companies should provide information to consumers regardless of their size. It is not a burden.

20. For disclosures by small food manufacturers, what is the appropriate language indicating that a phone number provides access to additional information? (Sec. 293(b)(2)(F)(ii)(I))

All companies should provide information to consumers regardless of their size. It is not a burden.

21. The Law excludes restaurants and similar retail food establishments from disclosure requirements. How should AMS define similar retail food establishment to exclude these establishments from the requirements of the regulation? (Sec. 293(b)(2)(G)(i))

No comment.

22. How should AMS define very small food manufacturers to exclude these manufacturers from the requirements of the regulation? (Sec. 293(b)(2)(G)(ii))

All companies should comply with the regulations.

23. Is there other equivalent on-package language that AMS should consider to accompany an electronic or digital disclosure besides “Scan here for more food information”? (Sec. 293(d)(1)(A))

No comment.

24. How should AMS ensure that bioengineered food information is located in a consistent and conspicuous manner when consumers use an electronic or digital disclosure? (Sec. 293(d)(2))

Information should be placed in the food nutrition panel. Consumers should be educated to look at that panel.

25. How should AMS ensure that an electronic or digital disclosure can be easily and effectively scanned or read by a device? (Sec. 293(d)(5))

No comment.

26. What types of records should AMS require to be maintained to establish compliance with the regulations? (Sec. 293(g)(2))

Records should be maintained at the company headquarters for at least 2 years consistent with FSIS food safety regulations.

27. How should AMS obtain information related to potential non-compliance with these regulations? Is there information USDA should request prior to conducting an examination of non-compliance? (Sec. 293(g))

No comment.

28. What are the rules of practice for a hearing? (Sec. 293(g)(3)(B))

No comment.

29. How should AMS make public the summary of any examination, audit, or similar activity? (Sec. 293(g)(3)(C))

USDA APHIS BRS maintains a web page with information about companies that have not complied with the regulations for experiment field trials. This could be a model for communicating the results of audits and other regulatory actions.

30. What should the requirements for imports into the United States of products covered by the Law/regulation be? (Sec. 294(a))

The requirements should be the same for domestic and imported food ingredients and products. This should not be a burden since most international food companies are already labeling

products destined for dozens of other countries with labeling laws. It is worth remembering that the US has been the outlier in GMO labeling for the past 20 years.