From: Morgan Carter

Sent: Wednesday, August 23, 2017 9:17 PM

To: AMS - GMO Labeling **Subject:** Proposed rule input

Below are my comments on a selection of the questions concerning the new GMO labels. Thank you for your thoughtful approach to this topic and the extended timeline to submit comments.

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

Any modifications that are found or could be found within the gene pool of that crop should be considered to be found in nature. Small changes to genes that could arise within the evolution or mutagenesis of a plant should be considered natural even if that exact sequence/allele/etc hasn't been identified in the natural population. For instance, if a tomato plant is engineered/edited to have a gene or version of a gene found somewhere in the pangenome of tomato species that can be cross-pollinated, then that gene should be considered natural. Likewise, if a tomato protein is altered slightly, although this alteration isn't in the tomato gene diversity, it should be considered natural, because under the right evolution stress or targeted breeding, that alteration has the potential to naturally arise. This probably shouldn't be extended to whole proteins/protein families that are not present in any form in the genetic diversity of that plant.

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))

AMS should not require disclosure for foods that are highly refined. The most obvious example of this is table sugar which has essentially no measurable amount of DNA or protein left after refinement. There is no reason that AMS should require that sugar beet sugar and sugar cane sugar that are chemically identical be labeled differently because sugar beets are often bioengineered and sugar canes are not. Any potential side effects of engineered DNA or their protein products are gone once the product is refined to this point.

7. How should AMS craft language in the regulations acknowledging that the Law prohibits animal products from being considered bioengineered solely because the animal consumed feed products from, containing, or consisting of a bioengineered substance? (Sec. 293(b)(2)(A))

Animal digestion is adept at breaking down any form of DNA or protein that it intakes as food into component parts, no matter the process by which that feed crop was created. Therefore, animal products will not be considered bioengineered solely based on feed consumption, as the underlying digestion chemistry is the same.

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))

It will be quite lengthy to disclose every ingredient as bioengineered or not, I would assume. Guided by the intention of this law, a food should be considered bioengineered if it contains a bioengineered ingredient within the list of ingredients that are not trace (<2%).

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

The creation of multiple levels of bioengineered is likely to confuse consumers and potentially cause more fear and confusions. Defining these categories seems difficult as well, and introduces another nomenclature hurdle for producers as they develop their labels. I think the negative connotations of labeling something bioengineered will carry to any category, so there is not a pressing consumer choice or advertising argument for multiple categories either.

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

Regulation of bioengineered/biotechnology-derived/recombinant DNA/etc products will continue to be messier and messier as new methods are developed and products go to market. There should be a more centralized definition scheme among the federal agencies (as brought up in one of these questions), if not a centralized office that could direct stakeholders to what regulations a product will be subject to, how to get the product to market legally, and how to sell it legally (label requirements). Adding another piece to the puzzle of GE foods with AMS tacking on another website (given EPA, USDA-APHIS, etc) with confusing nomenclature about regulated and not regulated will not help the public perception and trust of the food system and the government's oversight. It also is another set of forms to fill out and hoops for producers to jump through making it more difficult for smaller operations.

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))

Those phrases seem acceptable.

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))

AMS should not use a symbol to disclose bioengineered foods. It will be impossible to satisfy all groups, because anything green, attractive, or with plants will be seen as too positive and anything with red/orange/yellow/black, plain font, or with sharp edges will be seen as negative and too much like a warning sign. If a symbol option is necessary, then something small and more in line or a variation on the Organic logo would be the fairest.

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))

AMS should not specify the type of electronic or digital disclosure beyond general terms like the internet. QR codes or the like will probably come and go in popularity and with the rise of virtual reality, who knows what will be available even five years from now.

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

AMS should follow the guidelines set out by FDA for small packages to prevent confusion in different standards across federal agencies.

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

Again, AMS should stay consistent with other federal agencies when possible for definitions such as small food manufacturers. It appears the FSIS definition encompasses most of the FDA definitions, making it a good option.

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))AMS should require the text disclosure in addition to the electronic digital disclosure, as long as the text disclosure is small and unobtrusive. Only having a QR code or future equivalent requires extra input from the consumer that they may not be capable of at the time (no phone/no internet/phone dead/etc). A minimal text option should be the minimum label requirement, with the possibility of pushing more information onto the internet instead of packaging; maybe which specific ingredients are bioengineered if AMS decides to require that.

--Morgan Carter

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