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Ms. Michelle Arsenault, Advisory Committee Specialist
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. S.W.
Room 2642-S, Mail Stop 0268
Washington, DC 20250-0268

RE: Docket: AMS-NOP-17-0057

**Materials Subcommittee – Protecting the Genetic Integrity of Seed Grown on Organic Land
(Discussion Document)**

Dear Ms. Arsenault,

Oregon Tilth thanks the Materials Subcommittee for continuing to push the conversation forward on issues around genetically modified (GMO) crops and the potential for GMO contamination in organic production. Our organization has been actively engaged in working on these concerns for a number of years, and we know how complex, multi-faceted, and urgent the issue of GMO contamination is to the organic industry. We appreciate the opportunity to contribute to the discussion of this critical topic.

Previously, Oregon Tilth provided comments on the Spring 2015 discussion document, *Prevention Strategy Guidance for Excluded Methods*, and on the Spring 2016 discussion document, *Next Steps for Improving Seed Purity*. We would encourage the Board to revisit those comments as well as consider our thoughts on the questions posed in this discussion document, as they address many of the same topics and issues.

Our position on setting thresholds for GM contamination in seed used for organic crops has always been: proceed with caution. Thresholds for GM contamination in any crop must take into account a baseline contamination level in the crop, and the data needed to accurately determine contamination baseline levels is not publicly available at this time. All GM content thresholds set should be applied uniformly across organic and non-organic seed. Guidance for the industry will be critical to ensure consistency in seed sampling and testing, allowable forms of compliance verification, and procedures for certifiers to address threshold violations. Below, we offer more detailed comments on the questions posed by the Subcommittee.

Should we move to quantify the extent of GMO contamination in order to better understand the scope of the problem? How could this be accomplished?

Quantification of GMO contamination in relevant crops is a critical lynchpin which must be addressed before well-informed action can be taken in this area. Oregon Tilth urges the NOSB to focus on this area first and foremost, to ensure that any recommendations made for a GM threshold are well informed and will not inadvertently penalize organic farmers and seed growers.

Oregon Tilth conducts a small number of tests for GM content each year as part of our annual residue testing program. We regularly find low levels of contamination (typically less than one percent, occasionally more) in organic crops that have GM counterparts, particularly corn and soybeans, and to a lesser degree alfalfa. Obviously, our testing data relies on a very small sample size and cannot provide the information the Board would need to determine baseline contamination levels for different crops, and unfortunately, such data is not publicly available at this time. However, many private companies and some private verification programs have data sets that would prove very useful to the Board in this endeavor, and several have gone on the record at previous NOSB meetings to state that they would be happy to work with the Board in providing this information. If there was a mechanism for these organizations to provide their GM testing data to the NOSB in a confidential manner, this would be a huge step forward in being able to define the extent of GM contamination. Prioritizing such data collection and analysis is critical to the success of the next steps in this process.

Should a requirement be in place establishing a seed purity threshold for purchased seed (either organic or nonorganic, or both) planted on organic land? If so, what should the threshold be? How will that threshold vary with a crop?

Once the data on GM contamination levels have been collected and analyzed, and the NOSB has a clearer picture of the extent of the contamination issue in crops with GM varieties, it will be more feasible to consider establishing a seed purity threshold for seed used in organic production. To reiterate, we do not believe that a reasonable seed purity threshold can be established without such information. This data would be used to inform the percentage requirement for a threshold, and to determine whether the threshold should vary between different crops.

Should there be an approved list of tests, and/or testing laboratories, for tracking the presence of GMO in seed and/or crops?

Oregon Tilth strongly supports the development of additional guidance and/or instruction from the NOP for laboratory criteria and testing methodologies for GMO testing. Laboratory accreditation should be mandatory, and NOP Handbook Instruction 2611 already addresses what is required for labs conducting pesticide residue analysis; this instruction could be easily modified to incorporate requirements for labs conducting GMO residue analysis.

Additionally, any list of approved testing methodologies should also live in an instruction document in the NOP Handbook. This would allow the NOP to be more responsive in updating this list as new technologies and methods become available and are assessed by the NOSB for inclusion. We would encourage the NOSB to reach out to laboratories that currently conduct GMO residue analysis to request more detail on the differences between types of tests and which ones are currently covered by their accreditation. Oregon Tilth has relied heavily on our lab, Genetic I.D., for their expertise in the area of testing. They have been exceptionally helpful in providing detailed explanations of the technical parameters that have been critical in the development of our GM sampling and testing procedures.

Should there be an approved method of sampling for GMO traits? How much of a seed or crop should be tested to provide confidence that the entire lot is likely to be GMO free?

This is another area where NOP guidance to certifiers will be critical to ensure consistent, statistically representative samples are collected. In 2017, the Accredited Certifiers Association (ACA) developed the “Best Practices for Consistency in GMO Sampling” guidance document to assist certifiers in aligning their GMO sampling methods, which can be found at <https://www.accreditedcertifiers.org/policy-advocacy> under “Guidance Documents.”

This guidance addresses many of the questions posed in this discussion document, with a focus on appropriate sampling and testing methods, and would be a valuable resource for the Board to review. Some of the key parts of the guidance include:

- Sampling for GM contamination in a lot of product can be fundamentally different than sampling for pesticide residue in a crop.
- Both the sampling method used and the amount of the product collected will determine whether the test results can be considered statistically representative of the lot sampled.
- The equipment needed to collect samples, and the type of method used, will vary depending on the form of the product (grain or seed vs. meal vs. corn still on the cob), how the product is stored, the size of the lot, and other factors.

GMO testing laboratories can provide much more technical detail on the requirements for pulling statistically representative samples, and how much of any given crop/product is required to achieve the level of quantification necessary for relevant results.

Would a seed label statement indicating the percentage of GMO traits detected by an approved testing regime, be sufficient in providing the information needed by the purchaser of the seed? No detectable level of GMO traits, .1% or other levels are examples that could be provided.

Oregon Tilth understands that the Board is suggesting this method as a simple way for organic producers to collect verification information on the GM status of the seed they buy. However, we have several concerns with this proposal for verification.

Certifiers would only be able to require *organic* seed companies to use such a statement on their seed labels; there would be no such enforcement for non-organic seed companies to test their seed, or report the test results in a public manner — such as on their seed tags. This would mean that if a threshold was established, organic seed companies would end up bearing an additional financial burden of testing their seeds, but such testing would be optional for non-organic seed companies. If the non-organic company did not want to do the testing, they simply would not be able to sell their seeds to organic producers, who likely make up a small percentage of their market anyway.

Additionally, non-organic seed companies would likely be very reticent to put public, quantifiable statements of GM content on their seed tags. Any admission of GM content in their seed could be a liability for them, as the GM content is patented and they could be sued by the patent holder. That is why the language on their seed tags now generally states that the seed was not produced with GM methods “to the best of their knowledge.” Even if a non-organic seed company wanted to sell their seeds to organic producers, implementing a requirement for public labeling of the percentage of GMO traits could end up being a significant deterrent for them to supply the organic market.

And finally, if non-organic seed companies are unable or unwilling to provide necessary verification information to organic producers that their seed meets a specific GM content threshold, this will very likely lead to reduced diversity in the varieties of such crops that are available to organic producers. Organic producers would have to either use varieties that meet the threshold requirements but are not best adapted to their region or customer

needs, or they would have to shoulder the financial burden of conducting the testing themselves. With GMO testing ranging from \$300-\$600 per test, depending on the crop and the type of testing conducted, this is no small cost and would be untenable for many organic operations.

While we would like to offer ideas for alternative solutions, we are challenged to come up with any that would be practical and reliable while also being fair and equitable, especially in the absence of federal regulations and requirements that would impact all seed companies. As it does not appear that we can expect any such federal regulation or requirements to be put forth in the near future, the organic community will need to continue to search for ways to protect the integrity of seed used in organic agriculture and the actions we can take that will provide additional protections from GM contamination for organic producers and consumers alike.

Respectfully submitted,
Oregon Tilth

Oregon Tilth is a leading certifier, educator and advocate for organic agriculture and products since 1974. Our mission to make our food system and agriculture biologically sound and socially equitable requires us to find practical ways to tackle big challenges. We advance this mission to balance the needs of people and planet through a focus on core areas of certification, conservation, public health, policy and the marketplace.