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National Organic Standards Board
USDA-AMS-NOP 1400 Independence Ave., SW
Room 2648-S, Mail Stop 0268
Washington, DC 20250-0268

Docket: AMS-NOP-18-0071

April 4, 2019

RE: Materials/GMO Subcommittee Proposal: Excluded Methods Determinations April 2019

Thank you for the opportunity to provide comments on the Materials/GMO Subcommittee proposal on excluded methods terminology (February 12, 2019). Organic Seed Alliance (OSA) is a mission-driven organization that works nationally to advance ethical seed solutions to meet food and farming needs in a changing world. Our research, education, and advocacy programs foster seed systems that are responsive to the needs of organic agriculture, resulting in more organic seed and more skilled organic seed producers.

OSA appreciates the subcommittee's effort to clarify transposons as part of the excluded methods list and discussion, as well as the definitions for cisgenesis and intragenesis. We hope that future proposals and discussion documents on this topic include the excluded methods definition under 7 CFR 205.2 to provide relevant context for the organic community in addition to a clear statement with citations justifying the subcommittee's decision to move a method to the excluded category.

We support the general approach of this proposal but recommend clarifying that transposons are not a method. We offer the following clarifications in response to the proposal at hand:

- **Transposons**

Transposons are naturally occurring DNA sequences that are activated by stress on a genome. They are an evolutionary mechanism that, when activated under stress, create diversity in a species to allow quicker and better adaptation to that stress. The plant breeding community is still learning how transposons work and ways to activate and direct them in noninvasive ways.

We recommend that transposons not be listed in a table of excluded methods since they are technically not a method. Instead, the subcommittee should focus only on the methods for activating or directing transposons in ways that don't occur in nature. Transposons should then be referenced as part of the descriptions for these methods and/or in the notes section.

Transposons can be separated into three categories:

- 1) Activation of transposons under natural physical stress conditions (e.g., drought or heat). Because these activities are naturally occurring, and activate naturally occurring transposons, there is no need to list this in the table of methods.
- 2) We agree that transposons activated or directed through in vitro techniques should be excluded because this method fits the definition of “modern biotechnology,” as defined in the 2018 fall proposal on the same subject.
- 3) Transposons activated under chemical and radiation stress warrants further evaluation as part of the “induced mutagenesis” discussion document on this meeting’s agenda, since allowing or disallowing chemical/radiation-induced mutations affects both the determination for induced mutagenesis and the activation of transposons under these types of stress.

- **Definition for cisgenesis and intragenesis**

We support updating the definitions to the excluded methods terminology chart for cisgenesis and intragenesis with those provided in the proposal:

Cisgenesis: The gene modification of a recipient plant with a natural gene from a crossable sexually compatible-plant. The introduced gene includes its introns and is flanked by its native promoter and terminator in the normal-sense orientation.

Intragenesis: The full or partial coding of DNA sequences of genes originating from the sexually compatible gene pool of the recipient plant, and arranged in sense or antisense orientation. In addition, the promoter, spacer and terminator may originate from a sexually compatible gene pool of the recipient plant.

OSA is very supportive of clarifying the terminology used for making determinations regarding which methods are excluded in organic production systems. We appreciate that this topic remains a priority for the Materials/GMO Subcommittee. This work will provide more clarity to the organic farming and research communities, and to the organic seed trade as well.

Sincerely,



Kiki Hubbard

Director of Advocacy & Communications