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April 3, 2015

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

Re. CS: Plastic mulch; newspaper and other paper mulch

These comments to the National Organic Standards Board (NOSB) on its Spring 2015 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and groups around the world.

The following comments address plastic mulch and newspaper and other paper mulch.

Plastic mulch

Relevant rule:

§205.206 Crop pest, weed, and disease management practice standard.

(6) Plastic or other synthetic mulches: *Provided*, That, they are removed from the field at the end of the growing or harvest season.

Listing:

§205.601 (b) As herbicides, weed barriers, as applicable.

(2) Mulches.

(ii) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC)).

Plastic mulch has received much attention because of the need to remove it at the end of the growing season, which results in plastic waste being hauled to landfills. Biodegradable biobased bioplastic mulches are now allowed, are expected to eliminate some of the problems with plastic mulches. However, there is still no guidance on ensuring that bioplastic mulch degrades in the required timeframe and a recent article on the website of the Organic Materials Review Institute said no mulches are currently available that meet the criteria established by the NOSB and NOP or are expected to be listed by OMRI this year.¹

¹ <http://www.omri.org/news/124773/nop-clarifies-biobased-mulches>.

Plastic mulch harms the environment.

Those testifying in favor of biodegradable biobased bioplastic mulch have advanced good arguments against conventional plastic mulches –tons of plastic is taken to the landfill, but much gets left behind in irretrievable shreds in the soil. Otherwise, the Crops Subcommittee has presented other facts relevant to the impacts of conventional plastic mulches in its checklist (“Supplemental Review Information”):

- Polyethylene is usually derived from either modifying natural gas (a methane, ethane, propane mix) or from the catalytic cracking of crude oil into gasoline, though it may be made from biological sources.²
- Substitution for natural mulches reduces inputs of organic matter.
- Solarization kills microorganisms.
- Loss of water: In one season, the loss of water was 2-4 times higher and the loss of soil sediment was three times higher in plots where PE mulch was used compared to those where hairy vetch residues were used.

Plastic mulch fulfills limited needs.

As pointed out by the Crops Subcommittee, alternatives are available: Organic mulches, living mulches, recycled newspaper and other paper. These mulches degrade, adding organic matter to the soil. Other practices are available: for weed control, tillage and other mulches; for soil warming, planting adapted plants. On the other hand, those who wish to grow warm season crops in cool climates depend on plastic mulch to extend their growing season.

One alternative is biodegradable biobased bioplastic mulch (BBBM). The concern over its biodegradability caused both the NOSB and NOP to require complete degradation. We are concerned about the onus that this requirement places on the grower. Unfortunately, NOP has not produced the promised guidance that would have helped growers determine how to use BBBM in a way that ensures complete degradation under a variety of weather and soil conditions.

Plastic mulch is inconsistent with organic practices.

The use of a synthetic material made from nonrenewable resources that produces so much waste and takes the place of a practice –mulching with organic materials—that contributes organic matter to the soil is clearly inconsistent with organic practices when used on a large scale.

Conclusion

The NOSB should modify the listing for plastic mulch to limit its use to those cases in which organic mulches or cover crops cannot perform the necessary function. Our recommendation calls for annotation of the listing on the National List. We believe that this action is necessary to ensure that OFPA criteria are met. The NOP’s sunset policy does not allow this change to be made as part of the sunset process. Therefore, the NOSB must make the change through a two-stage process of removing the listing and creating a new listing. The USDA Office of General

² Wikipedia: Polyethylene. <http://en.wikipedia.org/wiki/Polyethylene>.

Counsel has previously ruled that a petition is not necessary for this process. In fact, the first National List did not arise based on petitions.³ If it is not possible to annotate this listing, it should be removed.

Newspaper and other paper

Current listing:

§601(b) As herbicides, weed barriers, as applicable.

(2) Mulches.

(i) Newspaper or other recycled paper, without glossy or colored inks.

Newspaper and other recycled paper provide organic mulching materials when natural mulches are not available. There have been many changes in newspapers since the original listing, and more investigation into newspaper production is needed to determine whether the annotation is still appropriate. Some colored inks may be no more harmful than carbon black, but this –and a verification procedure– should be determined based on an updated review.

The NOSB must base its decision on updated research.

As noted in the Crops Subcommittee checklist (“Supplemental Review Information”), newspapers have changed in the years since the original listing. Dioxin is less of a concern, and most inks are soy-based, which removes some of the concerns relating to the petroleum-based inks of the past. Pigments are still a potential concern, however, that require some research in support of a listing that prohibits the use of newspaper with colored inks. The prohibition against glossy paper is supported by the finding that they are more likely to have petroleum-based inks. We look forward to a proposal in the fall that is supported by further research.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.
Board of Directors

³ The November 2009 NOSB recommendation on chlorhexidine said, “In terms of the board recommending a substance to be added to the national list without a petition, (An OGC person sees) nothing in the OFPA or NOP regulations that would prohibit such action. (Another OGC person) agrees as well, and indicated that he believes the original NL was created by the board without any petitions. In either event, it would seem like the board's primary function is to make recommendations concerning the NL (to add, remove, renew, etc.) and that petitions are just one mechanism through which the board can make such recommendations.”

<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5081492&acct=nosb>.