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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. HS: Activated charcoal

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.

Beyond Pesticides would support the relisting of activated charcoal if it were possible to annotate the listing during the sunset review process.[1] Activated charcoal is a substance that could meet the requirements of the Organic Foods Production Act (OFPA) with few restrictions, including limiting its use to filtering water and requiring steam activation. However, without those restrictions, we find it to present environmental and health problems and issues with compatibility.

1. Environmental and Health Impacts

According to the Technical Advisory Panel (TAP) review, activated carbon can be produced from a number of agricultural commodities, including hardwoods, grain hulls, corn cobs, and nut shells. Activation can be achieved by a number of methods, including treatment with steam or acids, bases, and other substances. Activated carbon can be recycled, reactivated, or regenerated from spent activated carbon. "[A] number of solvents, acids, and alkalis may be employed to remove the adsorbed substances. These include such things as carbon tetrachloride, hydrochloric acid, hydrogen peroxide, potassium hydroxide, sodium hydroxide."

[1] The National Organic Program in the September 16, 2013 Federal Register notice repealed without public comment the annotation at sunset procedure that was adopted by the NOSB, with public input, in October 2010. Based on input from NOP and the public, a two-step/two-vote annotation procedure was established to enable the adoption of annotations on listed materials during sunset review, while ensuring that there was no gap in the listing of the material, should the regulatory process associated with the annotation take longer than the sunset phase-out period. See http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5088004&acct=nosb.

According to a study not included in the TAP review,[2] "Although this process results in small uniform pores with high adsorption capacity, the carbon is usually contaminated with the dehydrating agent."

In response to the concern noted above, which was also included in our comments in fall 2014, concerning contamination with the dehydrating agent, the HS said:

> One concern raised was pertaining to the spent material and that was answered during oral comment period that the spent material was reconditioned by the manufacturer of the material and that was subject to review as part of the annual certification renewal process. There was no new information presented to the Handling Sub-committee or the NOSB that would call this material into question and prompt a more extensive review.

Isn't the possible presence of carbon tetrachloride in recycled activated charcoal information that would call the material into question? Again, we repeat the suggestion of the TAP reviewers who suggested the annotation, "Must meet Food Chemicals Codex purity requirement and be manufactured from agricultural products by steam activation." We concur with this recommendation.

2. Essentiality

The petitioned use was to clarify and improve the flavor of organic fruit juices. The TAP review proposed that better harvesting and processing methods could eliminate the need for activated charcoal. The review also suggested that that use is not compatible with organic practices. (See below.) On the other hand, activated charcoal is often used to remove chlorine and other chemicals from tap water, which may be essential in some cases. Thus, TAP reviewers also suggested the annotation, "Processing material for filtering water, only." We agree with that recommendation as well.

3. Compatibility

The use, as petitioned, to improve the color and flavor of grape juice, is not considered compatible with organic production and handling. Moreover, although the nutritional value of the juice may be improved, it may also be diminished. According to the TAP review, "This depends on a number of complex factors: the nature of the activation of the carbon, the nutritional quality and chemical properties of the adsorbate, the preparation, and the various factors related to adsorption."

4. Ancillary substances

According to the recommendation passed by the NOSB in the spring of 2013, the board defined "ancillary substances" as "additives added during the manufacturing of a non-organic substance and ***not*** removed." The HS states,

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[2] M.D. Sufnarski, 1999. The Regeneration of Granular Activated Carbon Using Hydrothermal Technology, master's thesis in Chemical Engineering at the University of Texas. http://www.dtic.mil/dtic/tr/fulltext/u2/a362534.pdf

> The Subcommittee review indicated that there are no ancillary substances in this material. There have been no ancillary substances declared by stakeholders during the public comment periods (both oral and written). Therefore, no ancillary substances will be allowed, unless otherwise petitioned and reviewed by the NOSB and the appropriate Subcommittee. This completes the ancillary substance review.

Yet the information provided above –that substances used to recycle activated charcoal may be present in the final charcoal—does indicate the presence of substances added during manufacture and not removed. Some of them are quite toxic.

5. Conclusion

Beyond Pesticides opposes the relisting of activated charcoal as currently allowed. We would support a listing that limits its use to filtering water, and requires steam activation.

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 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]

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