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October 12, 2016

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: Cellulose

These comments to the National Organic Standards Board (NOSB) on its Fall 2016 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 the world.

In reviewing this substance, the NOSB must apply the criteria in the Organic Foods Production Act (OFPA), that its use—

- (i) would not be harmful to human health or the environment;
- (ii) is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products; and
- (iii) is consistent with organic farming and handling.¹

At the spring 2012 meeting, the NOSB recommended relisting with the following annotation, in order to ensure that microcrystalline cellulose is not used in food, “for use in regenerative casings, powdered cellulose as an anti-caking agent (non-chlorine bleached) and filtering aid.” The NOP refused to make the annotation change and renewed the listing as originally written. The HS says, “The NOP is still working on the 2012 NOSB recommendation to add the word “powdered” to part of the annotation. Thus, no NOSB action on this issue is required at this time.” However, in its report on the status of completion of action on NOSB recommendations, NOP states that its rulemaking action is complete. The NOSB should get a firm answer from NOP regarding its intentions.

¹ OFPA §6517(c)(1)(A). Further details at OFPA §6518(m).

The manufacture of cellulose causes adverse impacts on the environment, and evidence is not conclusive about the safety of microcrystalline cellulose.

Cellulose may be derived from many sources, but the usual source is wood pulp. The production of wood pulp involves the clearing of natural ecosystems, which threatens biodiversity, high energy use, and emission of pollutants into the air and water.²

Although no health impacts were associated with it, a World Health Organization paper pointed out that the assumption that microcrystalline cellulose (MCC) particles are too large to be absorbed by the body is not true:

Rats, pigs and dogs were used to study the persorption of microcrystalline cellulose. The animals were not fed for 12 hours prior to oral administration of the test compound. Rats, dogs and pigs were given 0.5, 140 and 200 g, respectively, of the test compound. Venous blood was taken from the animals 1-2 hours after administration of the test compound, and examined for particles. Persorbed particles were demonstrated in the blood of all three species. The average maximum diameter for persorbed particles was greater in rats than in dogs or pigs (Pahlke & Friedrich, 1974).³

Cellulose is not necessary for organic production and handling.

The 2016 Technical Review (TR) identified alternative materials and practices for all listed uses of cellulose.⁴ In addition, none of the original TAP reviewers supported adding microcrystalline cellulose to food as an anti-caking agent.⁵

Some uses of cellulose are incompatible with organic production and handling.

Microcrystalline cellulose is a highly processed material not compatible with organic handling systems.⁶

Conclusion

It appears that cellulose can be removed from the National List as unnecessary. As an alternative, the recommendation for an annotation change passed by the board in 2012 should be revisited.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.
Board of Directors

² 2016 Cellulose TR, lines 373-391.

³ World Health Organization, 1998. Food Safety Additives Series 40.

<http://www.inchem.org/documents/jecfa/jecmono/v040je03.htm>

⁴ Lines 429-471.

⁵ 2001 TAP review, lines 414-426.

⁶ 2001 TAP review, lines 21-22.