



BEYOND PESTICIDES

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September 19, 2017

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. LS: Hypochlorous acid petition

These comments to the National Organic Standards Board (NOSB) on its Fall 2017 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 Spring 2016, the NOSB voted to add hypochlorous acid to §205.603 for disinfecting and sanitizing facilities and equipment. This petition seeks to add it to treat wounds and eye irritation in livestock. Unlike the previous petition, which added hypochlorous acid generated by electrolyzed water for uses for which hypochlorous acid in hypochlorite solution was already allowed, this petition requests a completely new use, in direct animal contact. Beyond Pesticides opposes the listing of new sanitizers/disinfectants—especially those containing chlorine—until a thorough review of the need for these products in organic production and handling is performed. This review should identify uses that require chlorine and should also look at more environmentally friendly materials.

NOSB has taken note of the environmental and health impacts of chlorine compounds.

In 2003, the NOSB summarized previous NOSB and NOP action on chlorine and said: The TAP reviews pointed out many ways in which chlorine is unsatisfactory for organic handling. Chlorine compounds and other halogens have been shown to produce trihalomethanes. It was the NOSB's opinion that while chlorine needs to be allowed in the handling of organic food out of concern for public health and safety, its use needs to be minimized and operators need incentives and clear guidance to develop viable alternatives that protect the public as effectively as chlorine, but are less harmful to food handlers and the environment.¹

¹ This early history can be found in the 2003 NOSB recommendation "Measuring Effluent: Clarification of Chlorine Contact with Organic Food."

Hypochlorous acid is not essential.

First, overuse of antibacterial agents is counterproductive. The skin, through its resident microbial communities, plays an active role in immunity beyond the function of a physical barrier. The skin microbiota contributes to immune system function by inhibiting the growth of pathogenic microbes –by means of competition for nutrients and space and by restricting the growth of competitors through the production of antimicrobial compounds, called bacteriocins, which can inhibit the growth of other species of bacteria.² The dermal environment is a complex system of cell layers, nerves, and glands.³ Harmful disturbances of the skin microbial community may arise from changes in the composition of the community from acquisition of non-resident microorganisms or the removal of dominant microorganisms, environmental factors, and host genetics and demographic characteristics.⁴ Disease results from not just an increase in bacteria, but also a change in the microbial community of the individual and the resulting interaction with host immunity.

The supplemental technical review (STR) lists vaccines, natural materials, and practices that are used by organic livestock producers for prevention and treatment of pinkeye and treatment of wounds. The majority of these options are designed to build a strong immune system. We have not seen evidence that treatment options currently available are insufficient.

Hypochlorous acid is not compatible with organic production.

Chlorine compounds present health and environmental hazards. Hypochlorous acid is not necessary, in view of available treatments and preventive practices that are available and compatible with organic livestock production.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.
Board of Directors

<https://www.ams.usda.gov/sites/default/files/media/Rec%20Regulation%20Change%20on%20Chlorine%20Contacting%20Org%20Food.pdf>

² Sanford, J. A., & Gallo, R. L. (2013, November). Functions of the skin microbiota in health and disease. In *Seminars in immunology* (Vol. 25, No. 5, pp. 370-3).

³ Rosenthal, M., Goldberg, D., Aiello, A., Larson, E., & Foxman, B. (2011). Skin microbiota: microbial community structure and its potential association with health and disease. *Infection, Genetics and Evolution*, 11(5), 839-848.

⁴ Rosenthal, M., Goldberg, D., Aiello, A., Larson, E., & Foxman, B. (2011). Skin microbiota: microbial community structure and its potential association with health and disease. *Infection, Genetics and Evolution*, 11(5), 839-848.