



# BEYOND PESTICIDES

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September 20, 2013

National Organic Standards Board  
Fall 2013 Meeting  
Louisville, KY

## Re. CS: Sunset of Aqueous Potassium Silicate

These comments are submitted on behalf of Beyond Pesticides. 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, 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 urges the Crops Subcommittee to oppose the relisting of aqueous potassium silicate for both the insecticide and the plant disease control uses. It has been found by the NOSB not to meet the OFPA criteria of essentiality and compatibility with organic production. There are potential adverse impacts that have not been evaluated by the NOSB. Furthermore, under the new sunset policy announced by the NOP, unless the Crops Subcommittee (CS) proposes not to relist aqueous potassium silicate, it will not be reviewed and considered by the full board as required by OFPA and basic standards of transparency.

The checklist from the 2007 decision checks “no” for the questions asking whether the essentiality and compatibility criteria are met, separately for each use. The CS should investigate organic management systems that conserve and build available silicon in the soil as alternatives to potassium silicate, addressing nonsynthetic materials and practices that would avoid the need for potassium silicate that involve soil management as well as foliar treatments.

Pesticides may cause adverse effects not only through direct toxic action, but also through changes induced in plants. Potassium silicate makes plants more resistant to disease and herbivory, at least in part by concentrating silica. Humans and livestock are among the herbivores who might be consuming the treated plants. High levels of silica in plants decrease digestibility and may contribute to kidney stones.<sup>1</sup> The revised petition (2006) states that soluble silicate provides higher concentrations of silica in plants than are produced by natural sources. We believe that it is an adverse health effect if people cannot receive the nutrition they expect from a crop. The CS should therefore investigate the question of whether the foliar

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<sup>1</sup> Mayland, H.E. and Shewmaker, G.E. (2001) Animal health problems caused by silicon and other mineral imbalances, *Journal of Range Management*, 54, pp. 441-446.  
<http://eprints.nwisrl.ars.usda.gov/125/1/1047.pdf>

application of potassium silicate might have impacts on the nutritive value of treated foods that would exceed the impacts of silica obtained by the plant from natural soils.

There is no new technical review (TR) posted for this substance. We would like to be able to review a TR before submitting comments. It does not appear that we will have a chance to submit comments to the docket that will be considered by the CS after a TR is posted according to the new sunset process, so these comments are somewhat less detailed than we would like.

Finally, the September 16 NOP announcement concerning sunset allows for only one kind of recommendation to come out of the subcommittee –a recommendation against relisting the sunset substance. Even if the subcommittee believes that aqueous potassium silicate should be relisted, it does not have the authority to act on behalf of the full board. If the CS does not recommend against relisting, it would be acting without adequate transparency and public input. Therefore, the CS must propose that aqueous potassium silicate not be relisted.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is fluid and cursive, with a prominent flourish at the end.

Terry Shistar, Ph.D.  
Board of Directors