



BEYOND PESTICIDES

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April 6, 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. LS: Formic Acid

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.

Current listing

Current listing:

§205.603(b) As topical treatment, external parasiticide or local anesthetic as applicable.

(2) Formic acid (CAS # 64-18-6)—for use as a pesticide solely within honeybee hives.

Formic acid is used to control varroa and tracheal mites in honeybees. It is less toxic and less hazardous than conventional miticides, but it is a synthetic that poses some hazards to beekeepers. Available alternatives include management practices, nonsynthetic materials, and a synthetic soap on the National List. When the NOSB approved formic acid, a technical review was not available, and the Livestock Subcommittee evaluated the petition based on information in the petition, but said it “will reevaluate the recommendation when the TR becomes available.”

Formic acid poses health and environmental hazards.

Formic acid is toxic to plants.¹

There is a potential for ill effects on workers. The technical review (TR) cites adverse effects of formic acid exposure on workers.² Beekeepers are required to use personal protective equipment when handling fumigants.³ “Acute overexposure to formic acid causes irritation to

¹ TR lines 327-333.

² TR lines 382-393.

³ TR lines 261-262.

the eyes, skin, and mucous membrane of the mouth, throat, and esophagus. Acute formic acid exposure also may be associated with complications such as cardiovascular collapse and ischemic damage to the heart, liver and kidneys, swelling of the airway, and respiratory distress. Because of the irritating and corrosive properties of the substance, ingestion of formic acid may cause ulceration of the gastrointestinal tract, which results in perforation and scarring of the gastrointestinal tract.”⁴ “Laboratory studies cited by EPA report negative results for mutagenic potential. Chronic exposure to formic acid may damage the kidneys.”⁵

There are alternative materials and practices to the use of formic acid.

Natural substitutes include *Metarhizium anisopilae*, wintergreen salt-grease patties, neem oil, and dusts of powdered sugar or pollen substitutes.⁶ In addition to the natural alternatives, sucrose octanoate ester is on the NL.⁷ The TR mentions several mechanical means of controlling mites: use of a screened bottom board, drone-brood trapping, and resistant honeybees.⁸

Conclusion

We encourage the LS to assess formic acid in light of new information in the TR and input from beekeepers to determine its effectiveness and hazards relative to other alternatives that have been and may be identified.

Thank you for your consideration of these comments.

Sincerely,



Terry Shistar, Ph.D.
Board of Directors

⁴ TR lines 372-377.

⁵ TR lines 364-367.

⁶ TR lines 399-455.

⁷ TR lines 457-458.

⁸ TR lines 470-515.