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of HAWAII®  
MĀNOA

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1200 Pennsylvania Ave. NW.  
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Subject: **Docket ID Number EPA-HQ-OPP-2012-0167**

Comments in Response to *Cypermethrin (alpha & zeta) Registration Review: Draft Ecological Risk Assessment*

The following comments are being submitted in response to the November 29, 2016 *Federal Register* notice announcing the availability of and seeking public comment on EPA's draft ecological risk assessment for the registration review of cypermethrin (alpha and zeta) and the May 8, 2017 *Federal Register* notice extending the comment deadline. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on zeta-cypermethrin use in the production of seed crops in Hawai'i.

Growers may apply products that contain zeta-cypermethrin as the sole active ingredient (a.i.) or a combination of bifenthrin and zeta-cypermethrin to corn and soybeans to control aphids, armyworms, corn earworms, lesser cornstalk borers, planthoppers, Japanese beetles and thrips. These pyrethroid insecticides are used during the vegetative stages of the crop to reduce damage to plants directly caused by caterpillars and other insects as well as viral diseases transmitted by aphids and other piercing/sucking insects. Zeta-cypermethrin has been very effective at controlling corn earworm and aphids, thereby reducing crop damage by aphid-transmitted viral diseases.

Growers utilize integrated pest management (IPM). The application rate and frequency is dependent on the level of pest pressure or plant injury level based on scouting reports. An example application rate for zeta-cypermethrin (sole a.i.) of 0.025 lb/acre, not exceeding two applications per crop cycle, is used to control aphids, armyworms and corn earworms. (A crop cycle is four months. Typically, one crop is planted in a field per year. The field is planted in cover crops or fallow for the period between crops.) Fewer applications are made if pest pressures are below threshold levels. Another example for single a.i. zeta-cypermethrin products is an application rate of one application per four-month crop cycle of 0.048 lb/acre to control aphids, Japanese beetles, corn earworm and armyworms. Some growers may utilize these products only after all other control options have been exhausted.

Hawai'i's conditions allow at least two crop seasons per calendar year. They also create the potential for multiple generations of certain pests in a single year. Zeta-cypermethrin is useful because it controls

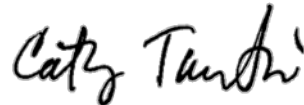
several problematic pests of corn. Additionally, rotation of pesticides with different modes of action is a foundation for resistance management. In Hawai'i, the effective insecticide chemistries for these crops are limited to the pyrethroids, organophosphates and carbamates. The availability of these and other pyrethroids facilitates the development of effective insecticide resistance management components of grower's IPM programs. The inability of growers to use zeta-cypermethrin and other pyrethroids may result in high negative impacts on crop yields and large economic losses and may jeopardize long-term crop sustainability of some operations.

Comments were received from representatives of the seed crop producers.

Comments complied and submitted by:



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