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Marquea King
Pesticide Re-Evaluation Division (7508P)
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave. NW.
Washington, DC 20460-0001

Subject: **Docket ID Number EPA-HQ-OPP-2010-0384**
Comments in Response to *Bifenthrin 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 bifenthrin 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 use of bifenthrin in seed crop production and the maintenance of turf sites in Hawai'i. These comments also discuss a proposed use of bifenthrin for coffee production.

Seed Crops. Growers may apply products that contain a combination of bifenthrin and zeta-cypermethrin to corn and soybeans to control lesser cornstalk borers, corn earworms, armyworms, planthoppers and thrips.

Growers follow integrated pest management procedures and utilize this tool after all other control options have been exhausted. The application rate and frequency are dependent on the level of pest pressure. Applications are made during the vegetative stage of the crop.

Turf. Products that contain bifenthrin as the sole active ingredient and combination products that contain a combination of imidacloprid, bifenthrin and zeta-cypermethrin are used on golf courses and other turf sites in Hawai'i. Turf managers use these products to control a variety of insect pests, such as sod webworm, armyworm, cutworms, frit flies and ants. These products are selected because they are relatively low-risk contact insecticides. (Systemic control is also provided in the products that contain imidacloprid.) Non-pyrethroid alternatives (such as organophosphates) may present more environmental risks and risks to non-target organisms.

Coffee, proposed use. Coffee berry borer (CBB), one of the most devastating of coffee pests, was first detected in Hawai'i in 2010 in Kona, on Hawai'i Island (the "Big Island"). Scott Enright, chairperson of the Hawaii Board of Agriculture says, "Despite strict quarantine rules that have been established on the interisland movement of coffee plants and plant parts from Hawaii Island, CBB infestations have been extremely difficult to contain" (<http://hdoa.hawaii.gov/blog/main/nr17-1-cbbonmaui/>). Since 2010, CBB has been detected on O'ahu (2014) and Maui (2016) (<http://hdoa.hawaii.gov/pi/ppc/cbbinfo/>).

Very few pesticides are registered for coffee production and there are almost no alternatives for CBB management. Moreover, CBB is one of the most difficult pests to manage in coffee because most of the life cycle of CBB is completed inside the coffee berry. Pyrethrins and *B. bassiana* are the only registered pesticides that provide some control of CBB.

Research in foreign coffee-producing regions has proven that no single approach will control CBB. The College of Tropical Agriculture and Human Resources of the University of Hawai'i at Mānoa recommends following an integrated pest management (IPM) approach to keeping CBB population levels low (<https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-41.pdf>). As part of this IPM approach, products are needed as alternatives for resistance management and for rotation with pyrethrins and *Beauveria bassiana*. Unpublished research indicated that bifenthrin provided good to excellent control of adult CBB as a direct contact spray. Bifenthrin was also effective when applied as an indirect dip treatment. Because all other life stages of this pest are protected inside the berry, pesticide applications must target adult CBB emerging from coffee berries, including berries that have dried on the tree ("raisins") or before they enter the un-infested berry. There are currently no registered products with residual activity against adult CBB. The proposed application rate is 0.2-0.25 lb/acre, 2 foliar applications/season up to a maximum of 0.5 lb/acre per season with a re-treatment interval of not less than 7 days.

Comments were received from Extension personnel of the College of Tropical Agriculture and Human Resources of the University of Hawai'i at Mānoa and a representative of the seed crop producers.

Comments complied and submitted by:


Mike Kawate
Pesticide Registration Specialist
Voice: 808-956-6008
mkawate@hawaii.edu


Cathy Tarutani
Educational Specialist
Voice: 808-956-2004
ctarutan@hpirs.stjohn.hawaii.edu