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1200 Pennsylvania Ave. NW.
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Subject: **Docket ID Number EPA-HQ-OPP-2012-0445**

Comments in Response to *Bromacil Registration Review: Draft Human Health and Ecological Risk Assessments*

The following comments are being submitted in response to the May 25, 2017 *Federal Register* notice announcing the availability of and seeking public comment on EPA's draft human health and ecological risk assessments for the registration review of bromacil. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on the use of bromacil in the production of pineapple in Hawai'i.

Pineapple production in Hawai'i consists of a 2 ½-year crop cycle with an additional 8-to-12-month fallow. Pineapple plants must be grown for 12 months to allow the plants to reach an average plant weight of 5 lb. When this is achieved, plants are forced to flower with ethylene and will produce harvestable fruit within 6-7 months. Following this first harvest, ratoon suckers grow for 6-8 months to an average plant weight of 3.5 lb. Then, for a second crop, the plants are forced to produce fruit within 6-7 months. After the ratoon harvest is complete (2 ½ years after planting) the field is knocked down and fallowed 8-10 months before being prepared and planted again. At one operation on the island of O'ahu, a total of 540 acres is planted per year, divided evenly over twelve months.

Immediately after bedding *pre-plant weed control* consists of a boom application of **bromacil (Hyvar X) at 1.6 lb ai/acre** together with diuron (Karmex) at 2.2 lb ai/acre in 250 gpa. *Immediate post-plant (1-7 days after planting)* is the most important herbicide cycle and consists of a boom application of **bromacil (Hyvar X) at 1.6 lb ai/acre** and diuron (Karmex) at 2.2 lb ai/acre in 250 gpa. At *intermediate post-plant (4 months after planting)* when the canopy is closing, an optional application of bromacil (HyvarX) at 1.6 lb ai/acre and diuron (Karmex) at 2.2 lb ai/acre are applied in 250 gpa. If weeds are still present an *intermediate post-plant (8 months after planting)* optional application of **bromacil (Hyvar X) at 1.6 lb ai/acre** and/or diuron (Karmex) is made in 250 gpa. At *forcing (12 months after planting)* **bromacil (Hyvar X) at 1.6 lb ai/acre** and/or diuron (Karmex) at 2.2 lb ai/acre is applied by boom spray at 250 gpa is applied. In summary, the total amount of bromacil applied in the first year ranges from 4.8 to 8 lb ai/acre.

Immediately after the first harvest is complete (18 months after planting) a foliar round of **bromacil (Hyvar X) at 1.6 lb ai/acre** is applied together with diuron (Karmex) at 2.2 lb ai/acre in 250 gpa. At *ratoon force (24 months after planting)* a foliar round of **bromacil (Hyvar X) at 1.6 lb/acre** together with diuron (Karmex) at 2.2 lb ai/acre is applied in 250 gpa. In summary, the total amount of bromacil applied in the second year (ratoon crop) is 3.2 lb ai/acre). There are no differences between bromacil rates of application between first and ratoon crops and the timing of bromacil applications complies with the maximum label specifications of 10 lb ai/year for the first crop and 4 lb ai/year for the second (ratoon) crop.

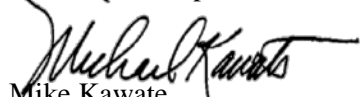
Bromacil is applied to pineapple fields only. Weeds in borders, ditches and other areas surrounding the fields are managed without application of bromacil.

Bromacil effectively controls weeds that are such as guinea grass, California grass, sourgrass, wiregrass and spiny amaranth. These are among the worst species of grasses to control in Hawai'i agriculture and bromacil is more effective than any other pre/post plant herbicides available. Thus, bromacil meets weed management needs that are critical and essential for economic farming of pineapple in Hawai'i. The residual benefits over the 2 ½-year crop cycle could not be effectively achieved by other pre/post emergence herbicides that have been evaluated for pineapple such as quizalofop, halosulfuron and bentazon.

Information about use of bromacil in pineapple production was received from one operation, on the island of O'ahu. Pineapple is grown at other operations on O'ahu and on Maui, Hawai'i Island, Kaua'i and Moloka'i (<https://quickstats.nass.usda.gov/>). Information about the use of bromacil at these operations was not reported.

Comments were received from a representative of Hawai'i's pineapple growers.

Comments compiled and submitted by:



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