College of Tropical Agriculture and Human Resources
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UNIVERSITY of HAWAI'I® MĀNOA

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Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: **Docket ID Number EPA-HQ-OPP-2015-0653**
Comments in Response to *Chlorpyrifos; Tolerance Revocations*

The following comments are being submitted in response to the November 6, 2015 *Federal Register* notice regarding EPA's proposal to revoke all tolerances for the insecticide chlorpyrifos. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on the use of chlorpyrifos on pineapples in Hawai'i.

Details about the use of chlorpyrifos on pineapples were provided as part of our response to a previous docket, EPA-HQ-OPP-2008-0850, *Chlorpyrifos; Preliminary Evaluation of Potential Risk from Volatilization* in Document ID: EPA-HQ-OPP-2008-0850-0163. Calvin Oda, a representative of the Pineapple Growers' Association of Hawai'i, provided this information. These details have been confirmed as valid and current by a pineapple grower and we are re-submitting Mr. Oda's comments. Please see the attachment, below. Mr. Oda passed away in 2015.

Additionally, comments in response to the *Federal Register* notice indicated above were submitted by at least two of Hawai'i's pineapple growers. Their comments can be found at Document ID: EPA-HQ-OPP-2015-0653-0096 and Document ID: EPA-HQ-OPP-2015-0653-0129.

Use of chlorpyrifos on pineapples is registered by the Section 24(c) Registration SLN HI-090001 for "nonbearing pineapple only." There is no tolerance for chlorpyrifos on pineapple.

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May 6, 2013

To: Kevin Costello, Branch Chief
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From: Calvin Oda, Authorized Organization Representative
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Subject: Hawaiian Pineapple Growers Comments: Chlorpyrifos Review; Preliminary Evaluation of the Potential Risk From Volatilization [EPA-HQ-OPP-2008-0850]

This memorandum presents the use and benefits of Chlorpyrifos in pineapple grown in Hawaii. It also provides some general information on the steps taken by pineapple growers in Hawaii to minimize potential residential exposure to air emissions that may result from agricultural use of pesticides.

Lorsban Advanced (EPA Reg. No. 62719-591) is registered under Section 24 (c) of FIFRA for control of mealybugs infesting nonbearing pineapple only. The use of chlorpyrifos in pineapple grown in Hawaii is limited by the restriction of application to not more than three months after planting of newly planted crops, the relatively small acreage of pineapple grown in Hawaii, and the voluntary implementation of significant buffer zones at all application sites. Although the chlorpyrifos use is very low in comparison to other raw agricultural commodities, the use is very important due to the lack of registered alternatives and limitations in the number of applications of other registered pesticides such as Diazinon and Malathion.

The typical use of Lorsban Advanced in pineapple consists of: 1) average percent of crop treated is 50 percent of newly planted acres; 2) average pounds applied per year is 391 lbs. active ingredient; 3) average single application rate is 1.25 lbs. a.i. per acre; and 4) upperbound rate is 1.25 lbs. a.i./A-single application rate. In general, one application of chlorpyrfos at 1.25 lbs. a.i. in 250 gallons of water per acre is applied immediately postplant.

Farming near residential areas is very difficult, due to the changing demographics of the population becoming less tolerant to dust and other nuisances associated with farming activities. In some cases, large agricultural field areas are abandoned or left in fallow because it is impractical to continue farming in the area. Whenever feasible, formulations such as Lorsban Advanced are used to minimize potential air emissions in sensitive areas. In pineapple, a minimum of 300 to 500 foot

buffer zone of untreated area are voluntarily enforced for any emulsifiable concentrate formulation applications. Applications are always made downwind of the buffer zones. Applications are not made in variable or adverse wind direction. Tall vegetative buffer crops such as iron wood trees and false sugarcane are grown around the edges of the fields to reduce potential spray drift. Low drift nozzles are used with lower operating pressures to reduce the size of the spray droplets. Most important, it is important to limit the number of acres that are treated in a given area per day. For pineapple, the single application may represent one acceptable exposure level in a three to five year period.

In order to continue to farm in Hawaii, you have to be good neighbors willing to maintain honest and open communication. Neighbors in nearby residential areas are notified by telephone with the estimated application time prior to any pesticide application to provide them with the opportunity to temporarily leave the area if they choose to do so. In Hawaii, there is a great incentive to use the best management practices since disgruntled residents will not hesitate to first notify local authorities of any suspected problem then file lawsuits if they are not satisfied with the response.

Control of the ant-mealybug complex and mealybug wilt is critical to the surrvival of pineapple in Hawaii. Ants tend mealybugs, protect them from predators, and clean up secreted honeydew resulting in large mealybug colonies. The ultimate result of mealybug feeding is destruction of the root system.

Control of budmoth larva may also be required to minimize early plant mortality and fruit losses due to insect damage. Budmoth feeding during fruit development results in serious insect damage to the harvested fruit and may also result in quarantine intervention if budmoth larva are not controlled.

With all of the recent regulatory changes for organophosphorous and carbamate pesticides, mealybug wilt in starting to reach epidemic proportions in some growing areas. If the spread of mealybug wilt is unchecked, it may result in additional closure of pineapple operations and loss of critical agricultural jobs.

In pineapple culture, two to three crops are produced from a single planting requiring three to five years for completion from planting to last harvest. The first crop or plant crop requires approximately 16 to 20 months from planting to harvest. The second and third crops requires 12 to 15 months from plant crop or 1-ratioon crop harvest to 1-ratoon or 2-ratoon crop harvest.

Pineapple relies heavily on diazinon for mealybug and budmoth control. The reduction in the number of diazinon applications from 8 to 2 applications per crop has made it impossible to control both mealybugs and budmoths with diazinon alone. For mealybug and budmoth control, approximately 6 insecticide applications may be required in the first or plant crop. In ratoon crops, it may take up to five insecticide applications to control mealybugs and budmoths.

Chlorpyrifos, diazinon, malathion, and endosulfan are registered for insect control in pineapple. Collectively, the registered insecticides allows an adequate number of insecticide applications to control mealybugs and budmoths. Under the voluntary cancellation agreement, the use of endosulfan will have to cease by July 2016. Malathion use in US agriculture will be evaluated in an EPA risk assessment in 2014 and uses may be reduced or eliminated. Pineapple represents a small use for diazinon and there are little financial incentives for basic registrants to support minor uses.

The Pineapple Growers Association of Hawaii strongly supports the Environmental Protection Agency to improve on the safety of chlorpyrifos uses in agriculture by imposing additional label restrictions including use of mandatory buffer zones. Good cooperation between farmers and residents already exists. OPs and carbamates can be used effectively and safely and play on vital role in insect resistance management. The new, safer alternatives have come under recent scrutiny on their potential impacts on honeybee populations in North America and Europe. The continued registration of OPs like chlorpyrifos will allow US agriculture to thrive while the studies are being completed. Widespread losses of the ‘old’ pesticides will only speed the departure of US agriculture to foreign countries where they can be used.

We trust that EPA will make be correct regulatory decisions based on good science and not emotion to mitigate unacceptable risks while preserving agriculture and agricultural jobs.