College of Tropical Agriculture and Human Resources
Department of Plant and Environmental Protection Sciences

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-2013-0360**
Comments in Response to *Registration Reviews: Abamectin (Case 7430); Pesticide Docket Opened for Review and Comment*

The attached comments are being submitted in response to the June 26, 2013 *Federal Register* notice announcing the opening of the public comment period for the registration of abamectin. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on abamectin usage in the production of bulb onion, tomatoes and eggplant crops and the maintenance of turf and landscape sites in Hawai'i.

Input was received from Extension staff of the College of Tropical Agriculture and Human Resources and the University of Hawai'i at Mānoa and local agricultural products vendors. Their information and comments are appended to this letter.

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Abamectin: Request for Usage and Benefits Information
Hawai‘i

Usage and Benefits

1. Site: Bulb Onions

A. Pest: Onion Thrips

1.) typical application rate

- 16 fl oz/A (Agri-Mek 0.15EC)

2.) typical method of application

- Broadcast spray ~70 gallons/acre (GPA)

3.) application timing & Integrated Pest Management (IPM)

- The growers need onion thrips control for approximately 8 weeks after transplanting.

IPM Abamectin is used in an insecticide resistance management program. Each insecticide mode of action group is rotated throughout the crop cycle. Two consecutive weekly applications of the same mode of action group are sprayed on the vegetative phase of the onion crop for approximately 8 weeks after transplant.

4.) application frequency

- 3 applications of abamectin to the crop per season

5.) alternatives to abamectin

- There are two other insecticides that are similar in its effectiveness to abamectin: spinetoram (Radiant) and spirotetramat (Movento). Imidacloprid (Admire Pro) is also labeled for use as a drench on onions; however, its control of onion thrips is fair to marginal. Other insecticides that are available are methomyl (Lannate) and lambda-cyhalothrin (Warrior). Both have fairly poor control of onion thrips because of development of pesticide resistance.

B. Pest: *Liriomyza* Leafminer

1.) typical application rate

- 8 to 16 fl oz/A

2.) typical method of application

- Broadcast spray

3.) application timing

- Abamectin is applied when leafminer is present in the field.

4.) application frequency

- 2 or 3 applications per crop per season

2. Sites: Tomato and eggplant

A. Pests: Broad Mites, Spider Mites, Tomato Russet Mites

1.) typical application rate

- 8 to 16 fl oz/A

2.) typical method of application

- Broadcast spray

3.) application timing
- ❖ The crop is sprayed with abamectin when the pest is detected on the crop.

4.) application frequency
- ❖ One or two applications per crop cycle

5.) alternatives to abamectin
- ❖ Spiromesifen (Oberon) is very effective; however the product is very expensive.

3. Sites: Turf (home lawns, parks, golf courses)

A. Pest: Fire Ants, Pharaoh Ants (and related ants)

1.) typical application rate
- ❖ 1 lb/acre (e.g. "Ascend", AI 0.011%)

2.) typical method of application
- ❖ Baiting. Can be applied directly from the 2-lb container or with a professional spreader.

3.) application timing
- ❖ Using Ascend bait (AI: abamectin) as an example. Apply after dew or rainfall has dried for best effectiveness. Do not apply if rainfall is anticipated. Apply as evenly as possible to turf/lawns. For mound treatment, use 5-7 tbsp per mound, and apply evenly.

4.) alternatives to abamectin
- ❖ In the case of fire ant control, hydramethylnon and indoxacarb can be alternatives to abamectin. Those are faster-acting chemicals than abamectin, but last shorter period of time than abamectin.

4. Sites: Ornamental Landscapes and Nurseries

A. Pest: Mites

alternatives to abamectin
- ❖ Abamectin is used widely in landscapes and nurseries. It is an excellent knockdown material against mites, perhaps the best. Most of the newer miticides such as spiromesifen are more active on eggs and immature stages so they tend to be better preventive products; they seem less effective when populations are high and damage is severe.