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MĀNOA

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Subject: *Dimethoate Registration Review*

The following comments are being submitted in response to an email message, "Registration Review Dimethoate" sent on December 17, 2009. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on the use of the insecticide dimethoate in the **vegetable** and **seed crop** industries in Hawai'i.

Vegetable crops: tomatoes, melons, cabbages, beans and peppers.

- **Percentage crop treated**
Estimated at 20% of each of the above-named crops. Dimethoate is usually used in rotation with several insecticides for resistance management.
- **Timing of use**
Dimethoate is usually applied in the early stage of the crop cycle (i.e., not close to harvest). Usually, there is one application per crop cycle. With the exception of melons, there may be more than one crop cycle per year. There will be more than one crop cycle per year of beans and tomatoes, in particular.
- **Importance of dimethoate**
For these crops, dimethoate is probably not critical in that growers aren't dependent on dimethoate for pest control. However, dimethoate is a valuable component to their resistance rotations. Additionally, dimethoate is often a tool selected because it is systemic and inexpensive. Cost is not a trivial concern for very small growers, many of whom are also immigrant farmers with extremely limited resources. (However, the new use limitation on dimethoate labels of 1.5 -2.0 pt/ac per year for many of the labeled crops probably makes dimethoate less attractive to growers.)

Seed crop: corn.

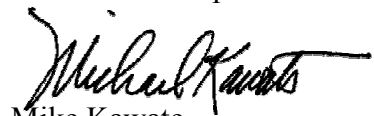
- Percentage crop treated
Seed corn crops now occupy 6,000 acres of land on four islands in Hawai'i (Kaua'i, O'ahu, Moloka'i, and Maui). All acres will get sprayed with dimethoate at least once a year.
- Timing of use
Dimethoate is used usually before the V-6 stage of corn development because the critical crop stage(s) for thrips control is up to V-6.
- Importance of dimethoate
Dimethoate is very critical to the production of seed corn in Hawai'i because it is the only insecticide available that has some systemic activity and thus can reach places that most insecticides cannot. Seed corn growers also use it because thrips can get into the whorl of the plant and are protected from contact action insecticides.

Seed crop: soybeans.

- Percentage crop treated
100%. Dimethoate is used in all soybean nurseries.
- Timing of use
Note: In Hawai'i, the soybean crop year is actually 3 cycles spread throughout the year, with the spring and summer crops having the greatest pest pressure. Dimethoate is used early in the cycle in the nurseries.
- Importance of dimethoate
Dimethoate is important in soybean production because of its effective mode of action which quickly eliminates the pest pressure (French bean fly, aphids, leafhoppers, and spider mites) and reduces pesticide applications later in the crop cycles.

This information has been provided by extension staff of the College of Tropical Agriculture and Human Resources, representative of Hawai'i's seed production industry, and an agricultural chemical vendor.

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