

# UNIVERSITY OF HAWAII AT MĀNOA

College of Tropical Agriculture and Human Resources

Department of Plant and Environmental Protection Sciences

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Office of Pesticide Programs

Environmental Protection Agency

1200 Pennsylvania Ave., NW.

Washington, DC 20460-0001

Subject: Carbofuran Usage on Bananas

The following comments are being submitted in response to the July 5, 2006 email correspondence regarding questions about use of carbofuran and its alternatives on bananas in Hawaii. These comments are being submitted on behalf of the Western Integrated Pest Management Center and provide input on the use of carbofuran to control banana root borer in Hawai'i.

Carbofuran is used by very few banana growers in Hawai'i. Like other crops grown in a variety of different locations in Hawai'i, pest pressures and cultural practices differ with the environment in which the crop is produced. In recent years, carbofuran use has been limited to the island of O'ahu. Therefore, currently, there is only one grower, for whom carbofuran is an important part of his production practices. However, a number of different varieties of bananas are grown in Hawai'i and some varieties are more susceptible to the banana root borer than others. Banana root borer is the main pest for which carbofuran is applied. Growers who may, at the present time, be growing a variety which is less susceptible to root borer would require a control for this pest if they were to return to production of a more susceptible variety.

- 1) *Do you have an estimate of the annual percent crop treated?* The statement "One grower estimates that new plantings represent only 8% of land in banana production" indicates that the percent crop treated is 8 percent or less (assuming carbofuran is only applied at planting for the banana root borer).

Actual percent crop treated is virtually impossible to obtain. Since there is only one grower who uses carbofuran on a regular basis, 8 percent would represent a **maximum** percent of the **acreage in his farm** annually. Information about the size of his farm is not available.

- 2) *Can you confirm that carbofuran is only applied at planting (except for use on nematodes)?* The label allows post-plant applications of carbofuran, and the Crop Profile for Bananas in Hawaii also indicates that carbofuran is applied after planting (4 months after planting and 4 month intervals after establishment) for the banana root borer. Do growers still apply carbofuran at these other timings for the root borer?

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Yes. For growers who apply carbofuran for banana root borer, the current practice is to apply only at planting.

- 3) Also mentioned is that growers are concerned about the effectiveness of ethoprop to control banana root borer. How does ethoprop efficacy compare to carbofuran? How does ethoprop efficacy compare to carbofuran? Do you have any efficacy data?

For banana root borer control, growers report that carbofuran is effective, but the effectiveness of ethoprop is poor. However, for nematode control, ethoprop is effective, but carbofuran provides poor control. We do not have efficacy data for either chemical.

- 4) How effective are the cultural practices currently used by growers?

The cultural practices used by growers are very effective against banana root borer. These practices are: using clean planting material; covering up pruning wounds with soil; and fallow. It must be emphasized, however, that for the grower who relies on carbofuran at planting, carbofuran is still required to control the banana root borer. He fallows a field for a year before re-planting and this is effective against burrowing nematodes, but not against the banana root borer.

Thank you for the opportunity to provide input on behalf of Hawai'i's banana growers. If you have further questions or concerns, please don't hesitate to contact us.

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