
Comments in Response to EBDC Fungicide Use on Macadamia Nuts and Coffee in Hawaii

Date: June 8, 2005

To: [Richard Michell](#)
USEPA

CC: [Rick Melnicoe](#)
WIPMC Director

From: [Cathy Tarutani](#)
American-affiliated Pacific Islands (API) Comment Coordinator
University of Hawaii
Honolulu, HI 96822

Dear Dr. Michel,

Barry Brennan forwarded your message, below, to us.

Dr. Mike Kawate, Pesticide Registration Specialist, and I work with a project sponsored by the Western IPM Center.

Our [response \(Microsoft Word\)](#) is attached.

If you have any questions, please contact [Mike Kawate](#) at (808) 956-6008 or me (contact info below).

Cathy

[Cathy Tarutani](#)
Phone: (808) 956-2004
Department of Plant and Environmental Protection Sciences
3190 Maile Way, St John 307
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Honolulu, HI 96822

Date: May 19, 2005

To: [Michael Kawate](#)
University of Hawaii

CC: [Richard Michell](#)
USEPA

From: [Barry Brennan](#)
University of Hawaii

Subject: Spray Gallonages/ Macadamia & Coffee

Mike:

Can you respond to this request? The answer requires having experience with fungicide application on these crops.

Barry

[Barry Brennan](#)
Extension Specialist
Plant and Environmental Protection Sciences
College of Tropical Agriculture and Human Resources
University of Hawaii-Manoa
Honolulu, HI 96822
Phone: (808) 956-0885

Date: May 19, 2005

To: [Barry Brennan](#)
Extension Specialist
Plant and Environmental Protection Sciences
College of Tropical Agriculture and Human Resources
University of Hawaii-Manoa
Honolulu, HI 96822

From: [Richard Michell](#)
USEPA

Subject: Spray Gallonages/ Macadamia & Coffee

Dear Dr. Brennan:

We are trying to calculate typical and maximum application rates for fungicides used on macadamia and coffee in Hawaii, using product labels that only specify an amount per 100 gallons. Can you forward this request to someone(s) who can address the typical and maximum full coverage spray gallonages used on these crops to apply non-systemic fungicides?

The maximum gallonage may be theoretical, if none of the growers actually use it, but would allow the risk assessors to draw some exposure lines and develop risk mitigation measures.

Thanks,

Rich

[Richard Michell](#), Ph.D.
Plant Pathologist-Nematologist
BEAD, USEPA
Phone: (703) 308-8119
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June 8, 2005

Macadamia Nuts

These opinions are the educated guesses of two macadamia growers who do not spray nonsystemic fungicides. Therefore, there is no real "typical" application rate. They represent two large macadamia producers and can be considered indicative of growing practices in Hawai'i.

1. The first grower has not used fungicides for over 15 years and has no plans to do so in the future.

This estimate is based on the practice of using 500gpa for the application of Saf-T-Side for scale control. For mature trees, this grower estimates he would need at least 300 to 400gpa for fungicide application to be somewhat effective. Realistically, it comes down to the effectiveness of the orchard sprayer in being able to achieve consistent spray penetration through the tree canopy.

2. The second grower does not use fungicides on macadamia and has no reason to unless there is an extreme or unique circumstance where a new disease or serious outbreak occurs. Over the past 21 years, this company has not used any fungicides on macadamia other than on small trial plots.

Their observations show that canopy coverage is very poor at low gallonages of less than 100 gpa on very young trees due to dense foliage. Increasing the gallonage could improve coverage but not satisfactorily due to difficulty in penetrating the canopy. That's the reason non-systemic pesticides (fungicides, insecticides) are not effective on macadamia.

In his opinion, 500 gpa would work for nonsystemics if the portion of the tree that needs to be covered is the trunk, and lower branches. This same gallonage will not provide the necessary protection or control if the pest is within and throughout the canopy. That's reality for an evergreen tree like macadamia.

Coffee

Fungicide application in coffee is infrequent in Hawai'i.

Growers report typical application rates of 30 gpa for small canopy situations and 50 gpa when the canopy is full. 100 gpa is the educated guess of the required maximum application rate.

Response submitted by:

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