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November 1, 2005

Dr. Teung F. Chin
Office of Pest Management Policy
USDA Animal & Plant Health Inspection Service
4700 River Road, Unit 149 (Room 5A66)
Riverdale, MD 20737-1237

Dear Teung,

This letter is in response to your request from Cheminova concerning the use of malathion on citrus grown in California. Per Cheminova: We are trying to figure out the application rates for the EC and ULV formulations of malathion that might be important to citrus growers. The ULV label rate is 0.175 lbs ai/A and the EC label rate is 6.25 lbs ai/A. Can you help us define the maximum single application rate needed by growers for each formulation?

The ULV label rate is used only for fruit fly baits, hence the low application rate.

The range of rates for 323 applications made to citrus in California in 2003 (California Department of Pesticide Regulation's Pesticide Use Report for 2003) was 0.09 – 15.5 lbs ai/A. The median application rate was 0.36 lbs ai/A.

Label rates for malathion are generally given in terms of pints of product per 100 - 800 gallons of water/A, not as an absolute maximum ai/A rate.

According to Dr. Beth Grafton-Cardwell, University of California, malathion is used primarily for scale insects in the 1-2 pts/100 gallon range. Scale insects require thorough coverage, which has been defined as 1000-3000 gallons of water per acre, for citrus, with the most common treatment being 1500 gpa.

If Malathion were applied in 1500 gpa water, then 1.9-3.8 gallons Malathion 8 S/A = 15-30 lbs ai/A.

These treatments are not frequent and growers are probably not applying the maximum. During 2003 Malathion was most likely applied for cottony cushion scale and the occasional black scale or red scale control.

Dr. Grafton-Cardwell believes the minimum acceptable rate of malathion for scale control would probably be in the range of 12-15 lbs ai/acre.

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Very low rates of Malathion 8 S would be used for the odd pest (katydid, cricket etc).

If you have any further questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Rick Melnicoe". The signature is written in a cursive style with a small flourish at the end of the last name.

Rick Melnicoe
Director, Western IPM Center