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May 10, 2006

Jill Bloom, Review Manager  
US Environmental Protection Agency  
Office of Pesticide Programs  
Special Review and Reregistration Division

RE: Metaldehyde Use in California

Dear Jill,

This letter is in response to your April 6, 2006, request for comments on metaldehyde. You specifically asked:

How serious a problem are snails and slugs in your Region for the following situations:  
In agriculture (by crop, if possible please), specifically, are snails and slugs economic pests?

Slugs and snails are serious pests in many California crops. In particular, they are major pests of artichokes, citrus, avocado, raspberries and strawberries. There were 8,971 agricultural applications of metaldehyde in 2004 to a wide variety of crops.

Home/garden?

In most of California, homeowners battle snails in their gardens. Slugs are omnipresent, too.

Public lands (particularly parks)?

Because snails are a garden nuisance, they are often controlled in parks such as botanical gardens.

How is metaldehyde (ex. Slugit, Deadline, Corry's Slug and Snail Death) used your in the Region?

For control of snails and slugs in liquid and bait formulations.

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Rates?

Rates vary depending upon crop, degree of infestation and whether it broadcast or spot treated. The median rate in agricultural crops ranges from approximately 0.5 – 1.5 lb ai/ac.

How often is it used per season or crop cycle?

For the crops with the most use, one to two times per year.

What are the intervals between applications?

Generally methaldehyde is applied once per year or crop. If it is applied more than once the intervals range from 7 days to many months.

How is it applied?

It is broadcast or spot treated in infested areas.

What are the uses and usage of metaldehyde alternatives in the Region? Examples may include:

- Methiocarb (Mesurol)
- Iron phosphate (ex. Sluggo, Escar-go, Schultz Garden Safe Slug and Snail Bait, Worry Free Slug and Snail)
- Coconut oil soap (Concern SlugStop)
- Copper sulfate slurry or Bordeaux mixture
- Metallic copper strips or foil (ex. Snail-Barr)
- Decollate snails

Methiocarb is the most common alternative in nursery production. Iron phosphate and ferrous sulfate are less commonly used in cropping systems.

How efficacious are the chemical controls for snails and slugs?

Metaldehyde and methiocarb are quite efficacious. Other materials are less so.

Decollate snails are restricted by law to use in the southern San Joaquin Valley and southern California. They are effective where allowed, but take several years to control brown garden snails.

How effective are nonchemical controls in reducing snail/slug damage?

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Metallic copper strips are costly to install and maintain.

What cultural controls are used if any and how effective are they in the agricultural settings?

Cultural controls include skirt pruning in avocados and citrus, water management and vegetation control. These help somewhat, but chemical controls are still necessary.

Are there any use sites for which growers/users view metaldehyde as critical to production or aesthetics? If so, why?

The nursery and ornamental industries, citrus, avocados, berries, and other sensitive crops.

If applicable, please provide research contacts in your Region who have looked into relative efficacy of slug/snail pesticides (or other aspects of slug/snail control).

Beth Grafton-Cardwell, University of California, Kearney Agricultural Center, Parlier, CA. (559) 646-6591, bethgc@uckac.edu.

Phil Phillips, University of California, Cooperative Extension Ventura County, Ventura, CA. (805) 645-1457, paphillips@ucdavis.edu.

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 prominent loop at the end of the last name.

Rick Melnicoe  
Director, Western IPM Center