# WASHINGTON STATE UNIVERSITY TRI-CITIES

April 27, 2006

Ref: 2006-8-1

Teung F. Chin, Ph.D. Office of Pest Management Policy Agricultural Research Service U.S. Department of Agriculture 4700 River Road, Unit 149 Riverdale, MD 20737-1237

Subject: Malathion: Proposed Risk Mitigation Measures for Non-ULV Formulations

The following information is provided to you from the Western Integrated Pest Management Center regarding your April 6 request for input on EPA's proposed mitigation measures for non-ULV (EC and WP) malathion formulations. EPA has proposed changes regarding maximum single application rates, maximum number of applications allowed per year, minimum application intervals, pre-harvest intervals (PHI), and re-entry intervals (REI) for over 100 crops. This response provides input from Alaska, Idaho, Montana, Oregon, Utah, and Washington and focuses on the malathion uses that were discussed in our July 16, 2004 response to your earlier request for malathion use information.

#### Caneberries

EPA's proposed mitigation measures for use of malathion on various caneberry crops raised the following questions with crop experts in the PNW:

- What is the rationale for proposing a 4-day REI for Boysenberries when a 1-day REI is being proposed for the other caneberries? There is no reason that the REI for Boysenberries should be longer than the other caneberries, as the crop is grown virtually the same as the blackberries.
- What is the rationale for limiting the number of applications allowed to be made per season to Boysenberries, Loganberries, and raspberries to two while EPA is proposing that four applications per season are permitted for blackberries?

Growers are pleased that EPA is retaining the 1-day PHI.

Growers do require the use of more than two applications of malathion per season for all caneberries. While our July 2004 comment package indicated one or two applications per season were needed, further inquiries revealed that some growers require three or four applications per season for pest control. In raspberries malathion is typically applied both before and after harvest. (The after-harvest application is to reduce nuisance pests in the field prior to workers

entering to prune canes.) However, because of malathion's short PHI, this insecticide is also important should an aphid problem arise during harvest. Raspberries are harvested 12 to 15 times a season at 36 to 48-hour intervals.

We are asking that EPA establish a 1-day REI for all caneberries and allow four malathion applications per season for all caneberries.

# Cherry

As we stated in our earlier malathion response, there is a difference in malathion use in cherries across our region with many Oregon and Washington growers using the ULV formulations and most growers in Utah using non-ULV formulations. In all areas however, malathion is a critical tool for the control of cherry fruit fly, which is a quarantine issue. Cherry fruit flies appear at harvest and the fruit requires constant protection from the time the insects first appear in traps and the fruit has begun to soften and ripen until harvest is complete. Because adult cherry fruit flies lay eggs under the skin of ripening fruit, the purpose of the malathion application is to control adult fruit flies prior to egg laying. Malathion has about a 3-day residual for cherry fruit fly control. If a grower needed to make a malathion application more than three days before harvest, with EPA's proposed retreatment interval, they would be unable to make another malathion application prior to harvest and there would be cherry fruit fly reinfestation. In requiring a 7-day retreatment interval EPA is removing the utility of malathion for cherry fruit fly control.

We are asking that EPA reduce the retreatment interval for malathion use on cherries from seven days to three days.

We look forward to having the opportunity to comment on EPA's mitigation proposals for the ULV formulations when these become available.

### Mint

EPA's proposal to increase the REI for malathion use on mint to two days is problematic for PNW mint growers. Growers require field access following a malathion application to set irrigation lines and the proposed 2-day REI is too long. Representatives for the industry suggest a 24-hour REI which would be workable for growers.

## Parsnip, Rutabaga, and Turnip

Oregon parsnip, rutabaga, and turnip growers were queried about the proposed malathion changes and they expressed no concern with the mitigation measures being proposed by EPA. Now that growers have the use of imidacloprid (Admire/Provado) and are finding it to be an effective control, they are not relying on the use of malathion as much as in the past.

### **Pasture/Rangeland**

When queried, Extension personnel responded that EPA's proposals to cut the malathion use rate for pasture and rangeland in half and to limit applications to once per year would "practically eliminate the use of malathion as a rangeland/pastureland insecticide." Experts believe that lowering the use rate will reduce the effectiveness of malathion applications such that it will no longer be used on pasture and rangeland.

#### Strawberry

Although imidacloprid (Admire/Provado) and thiamethoxam (Actara) have proven effective for aphid control in strawberries, growers wish to retain the use of malathion on this crop for resistance management. Growers have no objections to any of EPA's proposed mitigation measures for malathion use on strawberries, only commenting that the proposed 3-day PHI was the longest that would be practical.

I hope you find this information useful. I am also attaching a contact list for your use should you have further questions.

Sincerely,

Jane M. Thomas

Jane M. Thomas Pacific Northwest Workgroup Comment Coordinator Washington State Pest Management Resource Service Washington State University Tri-Cities 2710 University Drive Richland, WA 99354 phone: 509-372-7493 fax: 509-372-7491 e-mail: jmthomas@tricity.wsu.edu

Contact List Malathion: Proposed Risk Mitigation Measures for Non-ULV Formulations

Crop:	Last Name:	First Name:	Organization:	Title:	Work Ph:	Email:	Responsible State:
canberries	Cieslar	Brian	Whatcom Farmers Co-Op	Agronomist	(360) 354-2418	BrianC@wfcoop.com	Washington
canberries	DeFrancesco	Joe	Oregon State University	Senior Faculty Research Assistant	(541) 737-0718	defrancj@hort.oregonstate.edu	Oregon
cherry	Alston	Diane	Utah State University	Extension Entomology Specialist	(435) 797-2516	dianea@biology.usu.edu	Utah
cherry	Long	Lynn	Oregon State University	Extension Horticulturist	(541) 296-5494	lynn.long@oregonstate.edu	Oregon
cherry	Walenta	Darrin	Oregon State University	Extension Agent	(541) 963-1062	darrin.walenta@oregonstate.edu	Oregon
mint	Lundy	Rocky	Mint Industry Research Council	Executive Director	(509) 427-3601	mirc@gorge.net	Washington
mint	Walsh	Doug	Washington State University	IPM Coordinator	(509) 786-9287	dwalsh@wsu.edu	Washington
parsnip	McReynolds	Bob	Oregon State University	Extension Horticulturist	(503) 678-1264	bob.mcreynolds@oregonstate.edu	Oregon
pasture/ rangeland	Kitchen	Boyd	Utah State University	Vice President for Extension	(435) 781-5452	boydk@ext.usu.edu	Utah
rutabaga	McReynolds	Bob	Oregon State University	Extension Horticulturist	(503) 678-1264 ext. 25	bob.mcreynolds@oregonstate.edu	Oregon
strawberry	Cieslar	Brian	Whatcom Farmers Co-Op	Agronomist	(360) 354-2418	BrianC@wfcoop.com	Washington
turnip	McReynolds	Bob	Oregon State University	Extension Horticulturist	(503) 678-1264 ext. 25	bob.mcreynolds@oregonstate.edu	Oregon
N/A	Bierman	Peter	University of Alaska Fairbanks	Western IPM Center State Liaisons/Representatives	(907) 745-3639	ffpmb@uaf.edu	Alaska
	Blodgett	Sue	Montana State University		(406) 994-2402	blodgett@montana.edu	Montana
	Daniels	Catherine	Washington State University		(509) 372-7495	cdaniels@tricity.wsu.edu	Washington
	Deer	Howard	Utah State University		(435) 797-1602	howardd@ext.usu.edu	Utah
	Hirnyck	Ronda	University of Idaho		(208) 364-4046	rhirnyck@uidaho.edu	Idaho
	Jahns	Tom	University of Alaska Fairbanks		(907) 262-5824	fftrj@uaf.edu	Alaska
	Jenkins	Jeff	Oregon State University		(541) 737-5993	jenkinsj@ace.orst.edu	Oregon