Napropamide (Devrinol) Use in the Pacific Northwest

Date: August 1, 2005

To: Harold D. Coble
Agronomist
USDA/ARS/OA

CC: Rick Melnicoe
Director, Western Region Integrated Pest Management Center

From: Jane M. Thomas
Pacific Northwest Coalition Comment Coordinator
Washington State University Tri-Cities

Dear Harold,

The information below is an amended response to your July 8, 2005 inquiry, forwarded to me from Rick Melnicoe, director of the Western Integrated Pest Management Center.

- Use of napropamide in the Pacific Northwest (PDF* 40K)
- Initial request from Demson Fuller, EPA

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WASHINGTON STATE UNIVERSITY
TRI-CITIES

August 1, 2005 Ref: 2005-9-2

Harold D. Coble, Ph.D., Agronomist
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The information below is an amended response to your July 8, 2005 inquiry, forwarded to me from Rick Melnicoe, Director of the Western Integrated Pest Management Center, regarding niche uses of napropamide. The following is the information I have been able to gather for napropamide use in the Pacific Northwest. Note that napropamide is not registered for use in Alaska and further that a Weed Specialist in Utah reported that napropamide was not widely used in that state. No information was available for napropamide use in Montana. What follows is napropamide use information gathered from Idaho, Oregon, and Washington.

Blueberries and Caneberries (blackberries, raspberries, Boysenberries, Loganberries)
Napropamide is not one of the main herbicides used on these crops; it is used on less than 5% of the acreage. Use is limited because the chemical is fairly expensive and there are some gaps in its spectrum of weed control. Napropamide is, however, sometimes used in rotation with other herbicides to prevent weed shifts, and in situations where a gentler herbicide is needed (e.g., in young plantings or in stressed fields).

Brassicas (broccoli, Brussels sprouts, cabbage, and cauliflower)
Napropamide is important in direct seeded brassica crops because treflan is the only other pre-emergent herbicide registered. While napropamide is not entirely effective, and only controls about 50% of the weed spectrum, it is still used because alternatives are limited. For brassicas grown from transplants, growers obtain effective weed control using oxyfluorfen (Goal) pre-plant. Where crops are direct seeded, growers can use treflan although this chemical must be soil incorporated at the time of application. In the cooler, wetter climate of Oregon where wet weather may prevent the necessary soil incorporation of treflan, napropamide remains an important tool.

Cranberry
EPA's Demson Fuller has indicated that the agency is aware of the use of napropamide on cranberries and the importance of this chemical in new plantings and young plantings thus no further information is provided here.

Currant
According to the Washington Currant Profile, growers have reported unsatisfactory results using napropamide and do not use this herbicide. Napropamide is however reported as important in Oregon's small (20 to 25 acres) currant industry. Here napropamide is used on most of the acreage as it is one of only two pre-emergence herbicides registered for use in currants. The loss of napropamide use would leave Oregon currant growers with insufficient options for pre-emergent weed control.

Filbert
Napropamide is also important in filbert production. It provides an option for soil residual control of weeds in a resistance management program. The most widely used soil residual material in filberts is simazine but some weeds have developed resistance to this chemical. While napropamide is not used extensively in filbert production in Oregon, growers feel that its registration is important and should be maintained so that it can be used in rotation with other herbicides for resistance management purposes and in situations where there is already known resistance to simazine.

Grape
The Washington Wine Grape Profile reports that napropamide is used on less than 5% of Washington's new wine grape plantings. Napropamide use is also reported on less than 5% of established plantings.

Kiwifruit
Kiwifruit are grown on 80 to100 acres in Oregon. Napropamide use is important to kiwi growers because, like currants, this is one of the few pre-emergence herbicides that are registered for use in kiwi and it is needed for use in rotation to prevent weed shifts. In any given year, about 70% of Oregon's kiwi acreage is treated with napropamide.

Mint
Rocky Lundy, Executive Director of the Mint Industry Research Council (MIRC), estimates that napropamide is currently used on less than 1% of the PNW mint acreage. In the past napropamide has been a very important tool in Washington and Oregon mint production; although with the registration of several new pre-emergent herbicides, the use has declined. The MIRC, however, would like to retain this use. Mr. Lundy feels that, while use in the PNW is not significant at present, there remains a need for the continued use of napropamide in other mint-growing areas such as Northern California.

Nursery
An Oregon State University (OSU) Weed Scientist who works with the nursery industry reported that while not critical, napropamide is an important chemistry for nursery growers. It is a very safe herbicide (many ornamental plants are tolerant) to apply on or around a broad spectrum of ornamentals. Many other products would cause unacceptable injury to ornamentals, especially when applications are made to small-sized plants. Napropamide is a key part of many herbicide rotations in nurseries. Research at OSU has shown that napropamide is one of the most effective herbicides for controlling northern willowherb (Epilobium ciliatum), which is one of the most

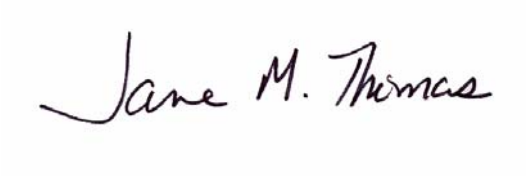
common and difficult to control weeds in container crops.

Rhubarb

Napropamide is important to Oregon rhubarb growers because they have so few choices for pre-emergent weed control. Grower use pronamide (Kerb), napropamide, and also, under Special Local Need registration OR-050001, s-metolachlor (Dual Magnum). Bob McReynolds, Extension Horticulturist with OSU, expressed his concern that one of the few pre-emergent herbicides might be lost. Growers cannot afford to give up napropamide when their resources are already so limited.

Thank you for the opportunity to provide this information.

Sincerely,



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Napropamide
Contact List

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Date: July 8, 2005

To: Rick Melnicoe
Director, Western Region Integrated Pest Management Center

From: Harold D. Coble
Agronomist
USDA/ARS/OA

The following request came in from EPA. Let me know of any niche (important but less than 5%) uses for napropamide (Devrinol) in your areas.

Thanks.

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Date: July 8, 2005

To: Harold D. Coble
Agronomist
USDA/ARS/OA

From: Demson Fuller
Chemical Review Manager
EPA

Hi, Harold:

BEAD is currently conducting a benefits analysis for napropamide where intend to target the uses with the highest percent crop treated (strawberries, tomatoes, peppers, tobacco, artichokes, and eggplant - % crop treated ranges from 10 - 20%). We wanted to also get an idea of the benefits for crops that are not in that group. For those commodities that are 5% crop treated or less, we would like to know if you are aware of any niches for these uses? There are a number of crops that fall into that category.

BEAD has also identified that there could be significant use for ornamentals for some crop/state combinations (for example, nursery grown azaleas and rhododendrons in Washington and ornamental grasses in Michigan). If you could provide some information concerning these issues, we would really appreciate it. If you could expedite this information to us at your earliest convenience, it would be helpful. Let me know if you have any questions. Thanks for your help.

Demson Fuller
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