## WASHINGTON STATE UNIVERSITY TRI-CITIES

July 30, 2004

Ref: 2004-8-1

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The following information is provided to you from the Western Integrated Pest Management Center in response to your questions about captan use. The three questions were posed in an e-mail to Rick Melnicoe, Western Integrated Pest Management Center Director, on June 23. This response comprises information gathered from five states in the Pacific Northwest (PNW) region: Alaska, Idaho, Oregon, Utah, and Washington. In addition to answering the three specific questions that you asked, I have included two comments for your consideration regarding future captan labeling.

**Ornamental Uses** - What types of activities are necessary during the captan re-entry interval (REI) in ornamentals?

The majority of the nursery, greenhouse, and chemical supply contacts to whom I spoke stated that the ornamentals industry is no longer using much captan because of the 4-day REI. Those who were still using captan provided the information that follows.

- Propagation: In plant propagation operations, plant cuttings may be dipped in a captan solution prior to planting. After the captan dip treatment, the person doing the dipping might immediately "stick" or plant the cuttings; the treated cuttings might be transported to another area for planting; or treated cuttings might be boxed and stored in coolers for anywhere from a few days to a month before sticking. Based on which of these propagation methods is used, workers need access for planting, routine cooler and greenhouse maintenance, watering, transporting treated stock, and/or access to coolers to add or remove stock. In some cases where a bed has been treated or where a bed has been planted with treated cuttings, growers will require access to that greenhouse for general greenhouse maintenance or for watering.
- Container Disease Control: Captan is used on azaleas and other shrubs in containers both in greenhouses and in the field for disease control. One large Washington producer of rhododendrons and azaleas uses captan only once a year because of the REI. In their greenhouse setting, workers apply captan just prior to the Thanksgiving holiday in order to accommodate the REI. This nursery uses captan as a knock-down treatment for botrytis. Whether plants are field or greenhouse grown, workers need access to treated plants for watering, including routine operation of irrigation equipment and in some cases hand watering.

- Bare-Root Production: One producer of root stock as well as bare-root fruit, flowering, and shade trees and shrubs is using captan on plants in the field in the early spring for the control of blossom blight and brown rot. They are also using captan to treat infection sites along tree trunks after shoots have been stripped off. When these treatments occur, access to treated areas is required for pruning and tying. Some captan is also used on bare root stock that is in cold storage waiting to be shipped. If an outbreak of botrytis or other mold occurs, growers might make a spot treatment if the infection is localized. If the outbreak is severe, all the stock in the cold storage facility might be treated. With this use, access to treated areas would be required to add new stock, to remove stock for shipment, and/or for any maintenance required within the cold storage facility.
- Easter Lily Bulb Dip: Oregon Easter lily growers are using captan as a pre-plant dip under SLN OR-030029. Bulbs are dipped then transported to fields where they are mechanically planted. No hand contact is required with the treated bulbs until they are "set" after planting. The mechanical planting process evenly spaces the bulbs in furrows. Next workers, suspended on creepers, move through the fields and reorient, by hand, any bulbs that are not upright in the furrow. After setting, a tractor moves through the field and covers the bulbs. Typically bulbs are dipped and planted the same day but if weather intercedes, planting may be delayed. In the case of Easter lilies, access to treated bulbs is required for transportation, planting, and setting.
- Overwinter Tuber Protection: Captan is used to protect overwintering begonia tubers from powdery mildew in nurseries in Alaska. The captan is sprinkled onto the soil in the pot containing the begonia tuber. The pots are arranged in trays. After treating a tray of pots, workers stack and palletize the trays. Pallets of treated trays are then stored for the winter. Access to treated pots is required for stacking and transporting trays.

## Turf Use - What is the maximum captan rate needed on turf?

I did not find anyone who was currently using captan on turf. There are currently more effective alternatives available for turf use. One person did indicate that when captan had been used in their area, it was used at the 4# ai/A rate.

**Eye Wash Station Location -** Should the eye wash stations be required to be closer than <sup>1</sup>/<sub>4</sub> mile (perhaps within 100 yards or immediately available)? Would an eye wash fanny pack be useful?

Growers do not favor requiring eye wash stations closer than <sup>1</sup>/<sub>4</sub> mile; however, they do support the use of portable eye wash devices as an alternative to standard eye wash stations. Either fanny pack eye wash kits or individual squirt bottles would be useful in the case where only one or two workers need to enter the treated area and not an entire crew. In either case the use of a portable device should be offered as an alternative but not a requirement. There is some concern that a fanny pack-type device would get in the way when workers are getting on and off tractors or other machinery.

## **Other Comments**

• Bulb Dip and Dahlia Tuber Use Directions: The bulb and dahlia industries in our region are very interested in obtaining labeling for the use of captan. Bulb growers need captan as a pre-plant dip treatment for daffodil, iris, and tulip bulbs for mold control. Currently the industry has very few choices for this use. We are hoping captan labeling that now allows for dip treatment of gladiola corms can be expanded to include use on daffodil, iris, and tulip bulbs. Should you need

additional information on this, please feel free to contact Richard Roozen, one of the owners of the Washington Bulb Company (360-424-5533) or Washington State University's Dr. Gary Chastagner (253-445-4528). Gary is a Plant Pathologist who works with the bulb industry. The dahlia industry needs captan as a dust treatment for use on tubers in storage. Tubers in storage are routinely inspected and should mold be detected those tubers need to be treated. To the best of our knowledge, there are no commercial labels that provide directions for applying captan dust to dahlia tubers in storage. The Oregon and Washington dahlia growers are interested in obtaining labeling that provides for this use.

• Turf Language: Please request that EPA alter the wording for the turf use directions on the captan labels. The use directions for turf currently appear under the heading "Grasses (Ornamental in Non-Pastured Areas Only)." This is very misleading. Most of the Extension people I spoke to thought that this referred to tufted ornamental grasses that are planted in landscape settings. It only becomes apparent this refers to turf by reading the application directions. I suggest that future labels use the term turf and that the label go on to list examples of specific areas where captan may be used (e.g., athletic fields, golf courses, sod farms, residential lawns, parks, recreations areas).

I have attached a contact list for your use should you find you have additional questions. Thank you very much for this opportunity to provide input on the captan reregistration and labeling process.

Sincerely,

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