



Cooperative Extension
Coastal Washington Research & Extension Unit
Long Beach, WA 98631

CRANBERRY VINE

March 1997

Meetings

International Spartina Conference. Thursday and Friday, March 20 and 21, 1997, the Tyee Motel in Olympia, Washington. Conference registration is \$140, but 11 pesticide credits will be given. Call Jean Canfield at 360-943-7732 or Kim Patten at 360-642-2031 for information.

Reports on findings from the Grayland Drainage Ditches. March 24, 7:00 p.m., North Willapa Grange, Grayland; by Dale Davis, Department of Ecology and John Stark, Washington State University. Pesticide credits will be given.

Bog Tour. The next bog tour will be hosted by Dave Thissell and held at the PCCRF's new museum at the WSU Research Station on Pioneer Road, Long Beach; March 27, 9:00 am.

Cranberry BMP's. These documents are critical for the survival of the cranberry industry. Find out what has been passed and what is proposed for the future. April 14, 7:00 pm, North Willapa Grange, Grayland; April 15, 7:00 pm, Ocean Spray Receiving Plant, Long Beach. Pesticide credits will be given.

Stinger

This short Cranberry Vine is to clarify issues concerning the use of Stinger for control of weeds on cranberry beds. Attached is the Section 18 granted by the Environmental Protection Agency on February 28, 1997. Read it carefully. You need to keep this and follow all the restrictions if you use this product. Also attached is the Waiver of Liability. Any application of Stinger in cranberries without a prior signed Waiver

of Liability Certification is an unlawful use of the product.

When to apply. Although the Section 18 allows for a 60 PHI this does not mean you should broadcast apply the product during the growing season. The Section 18 expires on July 31, 1997; therefore, all applications must be made before to that date. Do not spray Stinger on the vines past bud break. Any Stinger applied during the bud elongation phase will cause phytotoxicity to the vines. It will not kill the vine, but it could prevent a crop for two years. This time period depends on the cultivar and microclimate of the bed. Some cranberry beds may reach this stage by mid-March; others (early Stevens), by the end of April (late McFarlins). Therefore, examine the buds closely prior to spraying. Once the buds have commenced elongation, only wiping should be done on weeds extending above the vines. You can do this up to 60 days PHI or July 31.

What rates to apply.

Broadcast Spray: The label allows for a maximum of 2/3 pint per acre in a single year. Weeds should be sprayed to wet. Do not spray to runoff. Do not exceed 2/3 pint per acre in a single year. The majority of growers will apply this product with a backpack sprayer. Please refer to the Cranberry Vine of February 1996 for calibration of a backpack sprayer. If you spray to wet then the rate is likely to be around 60 to 100 gpa spray volume. At this spray volume, use approximately 1 teaspoon of Stinger per gal of water (1 tablespoon per 3 gal). Do not use a surfactant with this material. The above rate does not seem like much material, but for many weeds we have had good control at rates as low as 1/3 pint per acre. Use lower rates as you approach the critical bud stage.

Wiping: The Section 18 allows for wiping with a 2% solution (2.5 oz of Stinger/gal, 5 tablespoons/gal, or 75 ml/gal). We have had good control of lotus and purple

aster wiping at this rate without too much damage to the vines that are accidentally treated. High rates (5%) did not greatly improve control but did increase phytotoxicity.

What to spray. The Section 18 allows the use of Stinger on cranberries for control of lotus, aster and clover. Although Stinger will control other species in the legume, thistle and buckwheat families, such as dock, groundsel, smartweed, red sorrel (sour grass), sowthistle, and vetch, these weeds should not be treated unless they are associated with the primary target weeds. Do not spray non-target weeds such as silverleaf, false lily-of-the-valley or buttercup. In some cases Stinger may only suppress the target weeds rather than control them. Control is influenced by weed size, spray coverage, growing conditions and time of treatment. We have found that application in the early spring when the weeds are small is the best time to get good control of target weeds without adversely affecting the vines.

Other Comments. Stinger works best in a situation where a grower has good weed maps and knows exactly where all the hot spots are. Lacking this, it is virtually impossible to see and treat all the target weeds in a single pass. Allow yourself ample time during the treatment season to retreat areas that you missed. You should see symptoms in one to two weeks on most weeds. If you do not see symptoms by then, you likely missed that weed. Stinger may also have considerable soil persistence and, therefore, should not be applied at high rates in areas where new vines will be planted.

CAVEAT: The information in this newsletter was selected with good intentions by the editor. To simplify the presentation of information, it is sometimes necessary to use trade names. No endorsement of product is intended nor criticism implied. Where pesticides are mentioned, be sure to follow the labels exactly. If you have comments or suggestions regarding the newsletter, please write to the editor.

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COOPERATIVE EXTENSION



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Product Bulletin

3



DowElanco

9330 Zionsville Road
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Stinger*

EPA Reg. No. 62719-73

Section 18 Specific Exemption

For Distribution and Use Only in Grays Harbor, Pacific, and Whatcom
Counties of the
State of Washington

For Control of Lotus, Purple Aster and Clover Infesting
Cranberry

IMPORTANT: SIGNED WAIVER OF LIABILITY REQUIRED FOR USE

- ¥ Section 18 Specific Exemption: This label is approved under EPA specific exemption pursuant to Section 18 of the Federal Insecticide Fungicide and Rodenticide Act as amended. This Specific Exemption Expires 07-31-97
- ¥ It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- ¥ This labeling must be in the possession of the user at the time of application.
- ¥ Read the label affixed to the container for Stinger before applying. Carefully follow all precautionary statements and applicable use directions.
- ¥ In additions to restrictions and limitations imposed by this supplemental labeling, use of Stinger is subject to all use precautions and limitations imposed by the label affixed to the container for Stinger.

Directions for Use

Stinger* herbicide may be used as a broadcast foliar spray for post-emergence spot treatment or applied in a wiping application for control of lotus, purple aster, and clover infesting cranberry. Certain other susceptible broadleaf weeds growing in association with primary target weeds may also be controlled.

Application Timing:

Broadcast foliar spot application may be made only when cranberry plants are dormant. The "timing window" for broadleaf weed control is based on the physiological state of the cranberry plant from dormancy following cranberry harvest (early to mid-November) to spring budbreak [first emergence (1 to 2 mm) of terminal meristem]. This timing window begins when the cranberry vines go dormant in the fall) and ends with budbreak, when the crop becomes sensitive to application of Stinger. Susceptible weeds may still be in an acceptable condition for control from application made following cranberry dormancy in the fall. Application may also be made once new weeds have emerged (December to February). The ideal application window occurs when the weeds have emerged and have obtained sufficient canopy to allow treatment, but prior to budbreak, when the cranberry plant is still dormant and tolerant to Stinger. The time of budbreak is variety and weather dependent. For Stevens, budbreak will normally occur about April 15, and for McFarlin, about May 1. An early or late spring can accelerate or delay budbreak, respectively. Application after budbreak will cause plant injury.

Wipe treatments may be applied as a spot application following cranberry budbreak to control late emerging weeds or weeds which escaped earlier control measures. The treatment may be applied using

equipment such as a hockey stick type applicator. The treatment solution should be wiped onto weed foliage which extends well above the cranberry canopy. Contact of the treatment solution with cranberry foliage should be avoided since it will result in plant injury.

Application Rates:

Apply Stinger at 1/4 to 2/3 pint/acre (0.094 to 0.25 lb a.i./acre) as a broadcast foliar spot treatment. Apply with a backpack sprayer or ground broadcast equipment in a total spray volume of 30 or more gallons/acre. Use the lower rate for young succulent growth for sensitive weed species. Use higher rates for less sensitive weed species, perennials and under conditions where control is more difficult. There is no limit on the number of applications per acre as spot treatments as long as the total maximum rate of application does not exceed 2/3 pint/acre (0.25 lb a.e./acre) per annual growing season.

For wipe treatments, apply a 2% solution of Stinger in water (2.5 fl oz or 75 ml/gallon). There is no limit on the number of applications per acre as long as the total combined usage of Stinger from all types of applications does not exceed 2/3 pint/acre (0.25 lb a.e./acre) per annual growing season.

Restrictions:

- ¥ Application may be made only by certified applicators or persons directly under their supervision.
- ¥ Do not apply by aircraft.
- ¥ **Chemigation:** Do not apply Stinger to cranberries through any type of chemigation system.
- ¥ **Preharvest Interval:** Do not apply a broadcast foliar treatment within 60 days of harvest or a wipe treatment within 60 days of harvest.
- ¥ Do not apply within 6 - 8 hours of expected rainfall or irrigation.
- ¥ Total usage of Stinger through broadcast foliar treatment and wipe treatment must not exceed 2/3 pint/acre (0.25 lb a.e./acre) per annual growing season.
- ¥ Do not apply to weeds tolerant to Stinger such as silverleaf, yellow loosestrife, false lily-of-the-valley, buttercup, tussock, sedges, grasses, and violets.
- ¥ Avoid spray drift by using coarse sprays with large droplets and low-pressure, and by applying when wind speed is less than 5 mph.
- ¥ To prevent misapplication, make spot applications only through a spray nozzle/calibrated boom.
- ¥ Do not apply directly to water, to areas where surface water is present, or within 5 feet of any water moving off or through the cranberry field.
- ¥ Do not apply where surface soils have rapid permeability (sand) and no subsurface impermeability (clay or peat), and where the water table of the underlying aquifer is shallow.
- ¥ Application must avoid any adjacent wetland plant species.
- ¥ Follow all Worker Protection Standard requirements on the label for Stinger.
- ¥ Carefully follow rotational crop restrictions and other use precautions and limitations on the product label for Stinger.

*Trademark of DowEianco

122-25-032.doc
EPA-accepted 02-27-97
Replaces 122-25-024.

Labeling Action: Section 18 exemption for use of Stinger to control broadleaf weeds infesting cranberry.

WAIVER OF LIABILITY CERTIFICATE

I, the undersigned, acknowledge and understand that DowElanco (1) does not assume any liability for the use Stinger herbicide for broadleaf weed control in cranberries, and (2) makes no representations regarding its weed control or crop safety when applied in cranberries.

I hereby release DowElanco and the Seller from whom I purchased Stinger herbicide, their owners, officers, employees and agents, from any and all losses, damages, claims or causes of action, including reasonable attorney's fees and costs, relating to damage to or loss of any cranberry crop resulting from use of Stinger herbicide whether used by me or by a third party.

I understand that any application of Stinger herbicide in cranberries without a **prior** signed Waiver of Liability Certificate is an unlawful use of the product.

I warrant and represent that I have sole interest in the crop to be treated or am authorized to act on behalf of and bind all parties with an interest in such crop.

I have read this Waiver of Liability Certificate and have had the opportunity to have it reviewed by an attorney of my choosing.

Signature of Crop Owner: _____

Name of Crop Owner (Please Print): _____

Address of Crop Owner: _____

Seller send copy of signed Waiver of Liability Certificate to:

State Regulatory Affairs Manager
DowElanco
9330 Zionsville Road
Indianapolis, IN 46268-1054

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