

Using Stinger™ on Maine Cranberry Beds

Stinger™ herbicide (manufactured by Dow AgroSciences) was granted a Section 18 (Special Local Needs) permit in the spring of 2005. This fact sheet contains the basic information needed to use this herbicide. For more specific information concerning Stinger™, **READ THE LABEL!**

Stinger™ is a selective, postemergence herbicide used to control certain broadleaf weeds, particularly those in the **Compositae Family** (Aster/Sunflower Family) (daisy-like flower heads), and a few members of the **Pea Family** (clover and vetch). It works as a growth regulator by mimicking a plant growth hormone, resulting in abnormal growth. In more specific, botanical terms, it is believed to affect cell wall plasticity and nucleic acid synthesis.

Target Weeds

Asters / Daisies / Dandelions
Beggartick (<i>Bidens frondosa</i>) (also called Pitchfork)
Birdsfoot-trefoil (<i>Lotus corniculatus</i> L.)
Canada Thistle (<i>Cirsium arvense</i>) (suppression only)
Clovers (such as <i>Trifolium agrarium</i> and <i>Trifolium repens</i>)
Common Burdock (<i>Arctium minus</i>)
Common Ragweed (<i>Ambrosia artemisiifolia</i>)
Cudweed (<i>Gnaphalium uliginosum</i> L.)
Goldenrods (including Narrow-leaved: <i>Solidago graminifolia</i>)
Horseweed (<i>Erigeron canadensis</i>)
Joe-Pye Weed (<i>Eupatorium maculatum</i>) and other <i>Eupatorium</i> species
Purple Vetch (<i>Vicia cracca</i>); Sometimes called Blue Vetch or Cow Vetch
Tickseed (<i>Coreopsis lanceolata</i>)
Wild Bean or groundnut (<i>Apios americana</i>)

Some of the problematic weeds that Stinger™ will not control include: Yellow Loosestrife, Milkweed, Smartweed, Poison Ivy, and of course non-broadleaf plants (grasses, sedges, rushes).

Application Timing

Stinger™ works best when applied to weeds that are actively growing. Effectiveness may be reduced if applied to weeds that have already flowered or set seed. Only weeds which are emerged at the time of application will be affected.

Recommended Periods:

- In the spring, prior to budbreak.
- After fruit set, but prior to 50 days before harvest.
- In the fall, after harvest.

Cranberry plants are *least* sensitive to Stinger™ when it is applied after bloom. In the spring, from winter flood removal to 1 week prior to bloom, apply Stinger™ at the lowest labeled rate per acre. It is not recommended to apply Stinger™ when vines are growing actively (budbreak through bloom), and do not apply it from 1 week *prior* to bloom through 1 week *after* bloom. Stinger may cause phytotoxicity in those instances, and can cause crop loss in the affected areas, possibly for more than just the current season depending on the application rate used. It is best to wait until at least fruit set before using Stinger™ in order to avoid vine damage.

Application Rates

Lower labeled rates should be adequate for young succulent growth of sensitive weed species. Use higher rates on established target weeds when the weeds are in very dense stands, when the weeds are large, and/or when the weeds are stressed and therefore not actively growing (such as during periods of drought or high temperatures). The Stinger™ **Supplemental Labeling**, under **Directions For Use**, provides some specific ranges of application rates depending on the target weed, so be sure to refer to that as well.

For Spray Applications (broadcast foliar spot treatments):

(equivalent to 0.5-1.0 pint per acre rate when applied twice during the season)

- ¼ to 0.8 fluid ounce per gallon of water (or 2.67 to 8 fl oz per 10 gallons)
- **OR** 1.6 to 4.8 teaspoons per gallon of water
- **OR** 8 to 23.7 ml per gallon of water

1 oz = 2 Tablespoons = 6 teaspoons = 29.6 ml = 28.4 grams

1 pint = 2 cups = 16 oz = 474 ml

For Wiper Applications (2% solution of Stinger™ in water):

- 2.5 fl oz per gallon of water.
- **OR** 5 Tablespoons per gallon of water.
- **OR** 75 ml per gallon of water.

Coverage

Spray to wet, not to run-off. Minimize drift when applying as a spray. Use a fan-type nozzle (or similar) which delivers a coarse spray. Do not apply where drift may cause injury to other non-target plants (wind speed should be less than 5 mph). **When wiping, take care not to drip excess herbicide on the vines.** Consider using a dye as it will help monitor your coverage and will not interfere with the action of the herbicide.

**50-day PHI
12-hour REI**

Other Notes

- Wait at least 14 days before considering re-application of the herbicide, as results can be slow to show. Symptoms typically include wilting or ‘falling-over’ of the primary stem of the plant, followed by browning of the plant tissue, and eventual death.
- Up to 2 applications per season are permitted, not to exceed 1 pint per acre total material applied.
- Addition of surfactants, crop oils, or other adjuvants is typically *not* necessary when using Stinger™. Adding a surfactant may increase weed control but it may also increase vine injury, particularly under conditions of plant stress.
- Avoid contamination of irrigation ditches, especially when mixing chemicals.
- Stinger™ is a residual herbicide, and can injure cranberry plants and—depending on rates used, application timing, and environmental conditions—can significantly reduce yields.

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