

SPINACH (NOT REGISTERED FOR USE IN CALIFORNIA AND FLORIDA)

General Information

Product Information

Stinger herbicide is a selective, postemergence herbicide for control of broadleaf weeds in apple, barley, oats and wheat not underseeded with a legume, canola (rapeseed), Christmas tree plantations, conservation reserve program (CRP) acres, cottonwood/poplar and eucalyptus tree plantations, crambe, fallow cropland, field corn, garden beet, grasses grown for seed, Brassica, peppermint, popcorn, rangeland and permanent grass pastures, southern pine seedbeds in forest nurseries, spearmint, spinach, stone fruits, sugar beet, sweet corn, turnip, and non-cropland areas including fence rows, around farm buildings, and equipment pathways.

Stinger may be applied by aircraft on the following crops: canola (rapeseed), crambe, spinach, and sugar beet.

Do not apply Stinger by aircraft to other labeled crops unless otherwise permitted by Dow AgroSciences supplemental labeling.

Re-treatment is allowed, but do not apply more than the maximum allowable rate per crop growing season. An application to fallow cropland preceding or following an application to dryland small grains (wheat, barley or oats) is allowed, but is not allowed preceding or following an application to irrigated small grains.

Restrictions

Use directions in Dow AgroSciences supplemental labeling may supersede directions or limitations in this labeling.

In California and New York, the maximum application rate for Stinger is 2/3 pint per acre per growing season. Do not exceed a cumulative amount of 2/3 pint of clopyralid [0.25 lb acid equivalent (a.e.)] per acre per crop year, unless specifically allowed.

Not for sale, use or distribution in Nassau and Suffolk Counties in New York State. Do not contaminate irrigation ditches or water used for irrigation or domestic

purposes.

Do not use in greenhouses.

Chemigation: Do not apply this product through any type of irrigation system.

Do not spray pastures containing desirable forbs, especially legumes, unless injury can be tolerated.

Do not transfer livestock from treated grazing areas (or feeding of treated hay) to sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture (or feeding of treated hay). If livestock are transferred within less than 7 days of grazing untreated pasture or eating untreated hay, urine and manure may contain enough clopyralid to cause injury to sensitive broadleaf plants.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions, such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time prior to the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), necrosis (dead leaves or shoots), or stunting (reduced growth).

If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, wait one year before repeating bioassay or plant only a labeled crop or crop listed in the table below for which the rotational interval has clearly been met.

Avoid Injury to Non-Target Plants

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, do not apply Stinger directly to, or allow spray drift to come in contact with, vegetables, flowers, tomatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season. (See Crop Rotation Intervals.)

Residues in Plants or Manure: Do not use plant residues, including hay or straw from treated areas, or manure or bedding straw from animals that have grazed or consumed forage from treated areas, for composting or mulching where susceptible plants may be grown the following season.

Do not spread manure from animals that have grazed or consumed forage or hay

from treated areas on land used for growing susceptible broadleaf plants or apply such materials to land used for growing broadleaf crops, ornamentals, orchards, or other susceptible desirable plants. Plant materials or manure may contain enough clopyralid to cause injury to susceptible plant species. To promote herbicidal decomposition, plant residues should be evenly incorporated or burned. Breakdown of clopyralid in crop residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.

Avoid Movement of Treated Soil

Avoid conditions under which soil from treated areas may be moved or blown to areas containing susceptible plants. Wind-blown dust containing clopyralid may produce visible symptoms, such as epinasty (downward curving or twisting of leaf petioles or stems), when deposited on susceptible plants; however, serious injury is unlikely. To minimize potential movement of clopyralid on wind-blown dust, avoid treatment of powdery dry or light sandy soils until soil is settled by rainfall or irrigation or irrigate the treated soil shortly after application.

Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application herbicides. Where states have more stringent regulations, they must be observed.

Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applications:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Application Directions

Application Timing

Apply to actively growing weeds. Extreme growing conditions, such as drought or near freezing temperatures prior to, at, or following application, may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds that have emerged at the time of application will be affected. If foliage is wet at the time of application, control may be decreased. Applications of Stinger are rainfast within 6 hours after application.

Application Rates

Generally, application rates at the lower end of the rate range will be satisfactory for young, succulent growth of susceptible weed species.

For less sensitive species, perennials, and under conditions where control is more difficult (plant stress conditions, such as, drought or extreme temperatures, dense weed stands and/or larger weeds), use a higher rate within the rate range. Weeds in fallow land or other areas where competition from crops is not present will generally require higher rates for control or suppression.

Spot Treatments

To prevent misapplication, apply spot treatments only with a calibrated boom or with hand sprayers according to directions provided below.

Hand Held Sprayers: Hand held sprayers may be used for spot applications. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon an area of 1000 sq ft. Mix the amount of Stinger (fl oz or mL) corresponding to the desired broadcast rate in 1 gallon or more of spray. To

calculate the amount of Stinger required for larger areas, multiply the table value (fl oz or mL) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (calc. $3500 \div 1000 = 3.5$). An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Band Application

Stinger may be applied as a band treatment.

Use of Adjuvants

Addition of surfactants, crop oils, or other adjuvants is not usually necessary when using Stinger. Adding a surfactant to the spray mixture may increase effectiveness on weeds but may reduce selectivity to the crop, particularly under conditions of plant stress. When an adjuvant is to be used with this product, Dow AgroSciences recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

If an adjuvant is added to the spray solution, follow all manufacturer use guidelines.

Spray Coverage

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 2 gallons total spray volume per acre. For best results, and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, increase spray volume to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoid Injury to Non-Target Plants.

Limitations, Restrictions, and Exceptions

Spinach

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Use Stinger for postemergence control of annual sowthistle, black nightshade, Canada thistle, clover, common cocklebur, common groundsel, hairy nightshade, jimsonweed, pineappleweed, prickly lettuce, and ragweed infesting spinach.

Application Timing

Apply to spinach in the 2- to 5-leaf stage of crop growth. Apply Stinger to clover, common cocklebur, common groundsel, jimsonweed, prickly lettuce, pineappleweed

and ragweed from weed emergence up to the 5-leaf stage of growth. For top growth suppression of annual sowthistle and Canada thistle, apply Stinger from rosette up to bud stage. For control of Canada thistle, apply after the majority of basal leaves have emerged but prior to bud stage and at least 21 days prior to harvest.

Application Rate

Apply 1/4 to 1/2 pint per acre of Stinger uniformly with ground or aerial equipment in 10 to 20 gallons total spray volume per acre (minimum of 5 gallons per acre by air). Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Specific Use Precautions and Restrictions:

- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre.
- Some leaf curling may be observed on smaller spinach, particularly at higher use rates. Crop tolerance may be optimized by selecting the lower application rate necessary for weed control, especially where non-uniform emergence has caused variable plant sizes.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

21 days

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[To spinach in the 2- to 5-leaf stage of crop growth.](#)