

PM 23

62719-73

10/18

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-C060. Approval expires 05-31-98



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other Notif

OPP Identifier Number

247790

Application for Pesticide - Section I

1. Company/Product Number DowElanco/62719-73	2. EPA Product Manager J. Miller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DowElanco/Stinger	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) DowElanco 9330 Zionsville Road Indianapolis, IN 46268 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of Revised General Use Precautions per PR No. 95-2.

NOTIFICATION

Nov 6/1996

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)				
Name Dennis H. Lade, Ph.D.		Title Product Registration Manager		
		Telephone No. (Include Area Code) (317) 337-4685		
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)	
2. Signature 		3. Title Product Registration Manager		
4. Typed Name Dennis H. Lade, Ph.D.		5. Date October 25, 1996		

Stinger*

EPA Reg. No. 62719-73

Registration Notes:

Current Label Text based on EPA accepted copy dated 08-09-93 and WPS changes dated 06-01-94.

Proposed label changes by Notification (prepared 10-23-96):

1. The following sentence added to the General Use Precautions section: **"In the state of New York, Stinger may only be applied to Christmas tree plantations."**

[Editor's Note: Added text underlined and deleted text denoted by ~~strike through~~.]

* Trademark of DowElanco

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(Base label):

(logo) DowElanco

Stinger*

For selective postemergence control of broadleaf weeds in sugar beets, field corn, wheat, barley and oats not underseeded with a legume, Christmas tree plantations, grasses grown for seed, fallow cropland, rangeland and permanent grass pastures, non-cropland areas, conservation reserve program (CRP) acres.

Active Ingredient:

clopyralid: 3,6-dichloro-2-
pyridinecarboxylic acid,
monoethanolamine salt..... 40.9%

Inert Ingredients 59.1%

Total 100.0%

NOTIFICATION**Acid Equivalent:**

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 31% - 3 lb/gal

Precautionary Statements

Hazards to Humans and Domestic Animals**Keep Out of Reach of Children****CAUTION PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Causes Eye Injury • Harmful If Inhaled Or Absorbed Through Skin

Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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First Aid

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention.

Environmental Hazards

Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

Combustible - Do not use or store near heat or open flame. Do not cut or weld container.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

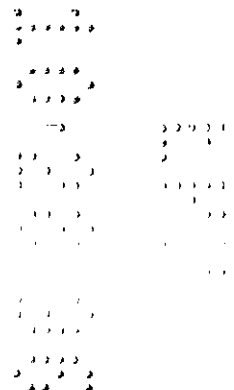
Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-73

EPA Est. 464-MI-1

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DowElanco • Indianapolis, IN 46268 U.S.A.

Herbicide**Net Contents XXX**

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(Datapack cover):

(logo) DowElanco

Stinger*

For selective postemergence control of broadleaf weeds in sugar beets, field corn, wheat, barley and oats not underseeded with a legume, Christmas tree plantations, grasses grown for seed, fallow cropland, rangeland and permanent grass pastures, non-cropland areas, conservation reserve program (CRP) acres.

Active Ingredient:

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid,
monoethanolamine salt..... 40.9%
Inert Ingredients 59.1%
Total 100.0%

Acid Equivalent:

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Herbicide

Net Contents XXX

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Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION PRECAUTION

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Causes Eye Injury • Harmful If Inhaled Or Absorbed Through Skin

Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention.

Environmental Hazards

Do not contaminate water when disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

Combustible - Do not use or store near heat or open flame. Do not cut or weld container.

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Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal.

Storage: Store above 28° F or warm to 40° F and agitate before use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Sprayer Clean-Out: To avoid injury to desirable plants, equipment used to apply Stinger should be thoroughly cleaned before re-using to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use at least three times with water, and dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15-20 min). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed and cleaned separately.

General Information

Stinger* herbicide is recommended for selective, postemergence control of broadleaf weeds in sugar beets, field corn, wheat, barley and oats not underseeded with a legume, fallow cropland, rangeland and permanent grass pastures, grasses grown for seed, Christmas trees, conservation reserve program (CRP) acres, and non-cropland areas including fence rows, around farm buildings, and equipment pathways.

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General Use Precautions

In the state of New York, Stinger may only be applied to Christmas tree plantations.

Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.

Do not apply by aircraft.

Do not use in a greenhouse.

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

Apply only once per 12-month period, except for Christmas trees, sugar beets, field corn, and grasses grown for seed. A fallow treatment that precedes or follows a small grain application is also allowed, except in irrigated small grains.

Rotation Crop Restrictions

Residues of Stinger in treated plant tissues which have not completely decayed may affect succeeding susceptible crops.

- Wheat, barley, oats, grasses, field corn, or sugar beets may be planted at anytime following treatment.
- Do not plant alfalfa, asparagus, canola (rapeseed), cole crops, grain sorghum, onions, popcorn, safflower, sweet corn, or strawberries for 10.5 months after a Stinger herbicide application.
- Do not plant dry beans, soybeans, or sunflowers for 10.5 months after a Stinger herbicide application, or 18 months if soils contain less than 2% organic matter and natural precipitation is less than 15 inches during the 12 months following treatment. For these areas see "Special Conditions" below.
- Do not plant other crops, including peas, lentils, potatoes and broadleaf crops grown for seed for 18 months after treatment unless the risk of injury is acceptable. For low moisture (less than 15 inches annual rainfall) and low organic matter (less than 2%) areas, a field bioassay is recommended prior to planting these sensitive crops.

Special Conditions: In areas defined previously as low in organic matter and precipitation, sensitive crops such as dry beans, soybeans, and sunflowers may be injured when planted 12 months after treatment. Unless the risk of injury is acceptable, these crops should not be planted until 18 months after treatment. The potential for injury may be reduced by burning, removal, or incorporation of treated crop residues with a minimum of 2 supplemental fall irrigations.

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, grapes, tomatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops and ornamental plants or soil where these sensitive crops will be planted the same season.

Avoid spray drift: Applications should be made to avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. Use coarse sprays to minimize drift since, under adverse weather conditions, fine spray droplets may drift a mile or more. A drift control or deposition agent such as Nalco-Trol may be used with this product to aid in reducing spray drift. If used, follow all use recommendations and precautions on the product label.

To minimize spray drift, apply Stinger in a total spray volume of 10 or more gallons per acre as large-droplet, low-pressure spray. Refer to manufacturer's recommendations for additional information on gallons per acre, spray pressure, sprayer speed, nozzle types and arrangements, nozzle heights above the target canopy, etc., for respective application equipment. Spot treatments should only be applied with a calibrated boom to prevent misapplication. With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying no more than 20 gallons of spray per acre; by using no more than 30 pounds spraying pressure with large droplet-producing nozzle tips; by spraying

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when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 miles per hour. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture. Otherwise, urine may contain enough clopyralid to cause injury to sensitive broadleaf plants.

Do not move treated soil and avoid situations where treated soil particles may blow into area where susceptible crops are grown. Violent windstorms may move soil particles. If this product is on soil particles and they are blown onto susceptible plants, visible symptoms may appear. Serious injury is unlikely. The hazard of movement of this product on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.

Straw from treated areas, or manure from animals that have grazed treated areas, cannot be used for composting or mulching on ground where susceptible crops may be grown the following season. To promote herbicide decomposition, plant material should be evenly incorporated or burned. Adequate moisture is also required to promote breakdown of plant residues which contain clopyralid.

Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

Sprayer Clean-Out: To avoid injury to desirable plants, equipment used to apply Stinger should be thoroughly cleaned before re-using to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use at least three times with water. Dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15-20 min). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed and cleaned separately.

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Broadleaf Weeds Controlled

artichoke, Jerusalem	marshelder
buckwheat, wild	nightshade, Eastern black
buffalobur†	nightshade, cutleaf
burdock, common	nightshade, hairy
chamomile, false (scentless)	oxeye daisy
chamomile, mayweed (dogfennel)	pineappleweed
clover, sweet	ragweed, common
clover, red	ragweed, giant
cocklebur, common	salsify, meadow (goatsbeard)
coffeeweed	sicklepod
cornflower (bachelor button)	smartweed, green†
dandelion	sorrel, red
dock, curly	sowthistle, annual
groundsel, common	sowthistle, perennial†
hawksbeard, narrowleaf	starthistle, yellow
horseweed	sunflower
jimsonweed	thistle, Canada
knapweed, diffuse	thistle, musk
knapweed, Russian†	vetch
knapweed, spotted	volunteer alfalfa
ladysthumb†	volunteer beans
lettuce, prickly	volunteer lentils
locoweed, white	volunteer peas
locoweed, Lambert	

†These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree of weed control and duration of effect will vary with weed size and density, spray rate and coverage, and growing conditions before, during, and after the time of treatment. For perennial weeds, Stinger will control the initial top growth and inhibit regrowth during the season of application (season-long control). At higher use rates shown on this label, Stinger may cause a reduction in shoot regrowth in the season following application; however, plant response may be inconsistent due to inherent variability in shoot regrowth from perennial root systems.

Application

Timing

Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at, and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. **Only weeds which are emerged at the time of application will be affected.** Wet foliage at the time of application may decrease control. The treatment with Stinger will be rainfast within 6 to 8 hours after application.

Rate

Generally, lower labeled application rates will be satisfactory for young, succulent growth of sensitive 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), the higher rates will be needed. Weeds in fallow or other areas where crop competition is not a factor will generally require higher rates to obtain control or suppression.

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Coverage

Adequate spray coverage and drift control are important. Obtaining a balance between spray coverage and drift control may sometimes be difficult but can be achieved provided the applicator understands the factors affecting coverage and drift. Factors affecting spray coverage include spray volume, crop canopy, and weed density. As crop canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Refer to manufacturer's recommendations for information on the relationship between gallons per acre, spray pressure, sprayer speed, nozzle type and arrangement, nozzle height above the target canopy, droplet size, and drift potential for respective application equipment. Use equipment and nozzle types which are designed for herbicide application. Do not apply less than 2 and not more than 40 gallons per acre total spray volume. For best results, apply 10 or more gallons per acre by ground. Reducing total spray volume may result in decreased coverage and weed control. Use enough total spray volume and a delivery system to provide thorough coverage and a uniform spray pattern. Do not apply where spray drift may be a problem due to proximity of susceptible crops or other desirable plants.

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

Tank Mixes

When tank mixing, read and follow the label of each tank mix product used for precautionary statements, directions for use, weeds controlled, and geographic and other restrictions. Use in accordance with the most restrictive of label limitations and precautions. No label dosages should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Weed Control Guidelines†

Amount of Stinger Per Acre x Use Site††							
Weed Species	Growth Stage	Sugar Beet, Christmas Trees	Wheat, Barley, Oats	Grasses for Seed	Fallow Cropland	Range & Pasture, CRP, and Non-cropland	Field Corn
clover cocklebur sunflower ragweeds Jerusalem artichoke jimsonweed volunteer soybean vetch marshelder	Up to 5 leaf	1/4 - 1/2 pt	1/4 - 1/3 pt	1/4 - 1/2 pt	1/4 - 1/2 pt	1/3 - 2/3 pt	1/4 - 1/2 pt
wild buckwheat nightshade sp. buffalobur smartweeds (suppression)	1 - 3 leaf stage, but before vining 2 - 4 leaf 2 - 4 leaf 2 - 3 leaf	1/2 pt					
Canada thistle sowthistle (suppression)	rosette to prebud	1/2 - 2/3 pt	1/4 - 1/3 pt	1/3 - 2/3 pt	2/3 pt	2/3 - 1 pt	1/3 - 2/3 pt
knapweeds, spotted/difuse knapweeds, Russian (suppression)	up to bud stage	2/3 pt	—	2/3 pt	—	2/3 - 1 pt 1 - 1 1/3 pt	— —

†This table is intended as a reference only. For complete instructions see the body of the text.

††Use the lower rate for light to moderate infestations and good growing conditions and the higher rate for dense infestations or under poor growing conditions such as drought.

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For measuring small volumes, refer to the following table to obtain appropriate conversions of pints to fluid ounces.

Conversion Chart - Pints to Fluid Ounces	
Pints	Fluid Ounces
1/3	5
1/4	4
1/2	8
2/3	11

Approved Uses

Agricultural Use Requirements for Crops: For the following crop uses, follow PPE and Re-entry instructions in the "Agricultural Use Requirements" section of this label.

Sugar Beets

Stinger herbicide is recommended for the control of various annual and perennial broadleaf weeds infesting sugar beets. Apply 1/4 to 2/3 pint of Stinger per acre with ground equipment as a broadcast foliar spray. Apply in 10 or more gallons total spray volume per acre when the sugar beets are in the cotyledon to 8 leaf stage of growth and the weeds are young and actively growing. Re-treat as necessary but do not exceed 2/3 pint of Stinger per acre per season. Do not apply within 105 days before harvest of beet roots and tops.

Stinger may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per treated acre} = \text{Band rate per treated acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per treated acre} = \text{Band volume per treated acre}$$

For annual weed control spray 1/4 to 1/2 pint of Stinger per acre on weeds up to the 5 leaf growth stage. Wild buckwheat applications should be made at the 1 to 3 leaf stage, before vining begins.

For the most effective control of perennials such as Canada thistle and sowthistle, apply 1/2 to 2/3 pint of Stinger per acre as a broadcast treatment to the entire infested area. Apply when the majority of basal leaves have emerged, but before the bud stage. Cultivation can disrupt translocation to the roots of perennials such as Canada thistle. For best results do not cultivate thistle patches.

To promote herbicide efficacy wait a minimum of 7 days after application before flood or furrow irrigation.

Tank Mixes

To control additional broadleaf weeds and provide consistent control of difficult weeds such as wild buckwheat, tank mix 1/4 to 2/3 pint of Stinger per acre with 2 to 6.5 pints of Betamix or Betanex. For best results, apply 1/4 pint of Stinger tank mixed with 2 to 6.5 pints of Betamix or Betanex followed 1 to 2 weeks later by a second application of 1/4 to 1/3 pint of Stinger per acre tank mixed with Betamix or Betanex. **Note:** Do not add additional adjuvants when employing a Betamix or Betanex tank mix with Stinger due to increased potential for crop injury. (See "Tank Mixes" section under "General Use Precautions".)

Stinger may be tank mixed with grass herbicides such as Poast for grassy weed control. Be sure to include crop oil or Dash surfactant to optimize grass weed control. (See "Tank Mixes" section under "General Use Precautions".)

Field Corn

Stinger is recommended for postemergence control of Canada thistle, Jerusalem artichoke, annual sowthistle, common sunflower, common cocklebur, giant and common ragweed, jimsonweed and other broadleaf weeds infesting field corn. Apply Stinger at suggested timing and rates for field corn as indicated below.

Apply Stinger to actively growing broadleaf weeds any time after corn emergence through 24 inch tall corn. Apply with ground equipment as a postemergence broadcast or directed spray in 10 or more gallons of spray volume per acre to ensure uniform and thorough spray coverage of the weed foliage. Use only spray nozzles designed for herbicide application. The use of flat fan nozzles provides the best coverage and distribution of chemical on the plant foliage. Use spray pressures (at the boom) which nozzle manufacturers recommend to obtain desired spray volume. Use higher spray pressures and volumes when weed foliage is dense.

For effective control of Canada thistle, apply 1/3 to 2/3 pint of Stinger per acre as a broadcast treatment to the entire infested area. Apply when the majority of thistle plants have emerged, and thistles are at least 6 to 8 inches in diameter or height, but before bud stage. Cultivation can disrupt translocation to the roots of Canada thistle. For best long term control, do not cultivate before or after application. If cultivation is necessary, wait 14 to 20 days after application before cultivating to allow for thorough translocation.

Control of Canada thistle will be influenced by growing conditions, density and size of thistle plant at the time of application, tillage practices used, etc. Light infestations (less than 10 plants per square yard) will generally be adequately controlled with a rate of 1/3 pint per acre. For medium to heavy infestations, (more than 10 plants per square yard) rates of 1/2 to 2/3 pint per acre are generally more effective since these Canada thistle stands involve an extensive rhizome system.

The following are general descriptions of control to be expected from each rate of application, given a medium to heavy population of Canada thistle. Control of lighter infestations may be better than that described.

A rate of 1/3 pint per acre will suppress top growth of Canada thistle for 6 to 8 weeks. Some regrowth may occur by the end of the season, but this will not interfere with harvesting of the crop.

A rate of 1/2 pint per acre will generally provide season long control of Canada thistle. Not all rhizomes will be killed, and some regrowth may occur by the end of the growing season.

A rate of 2/3 pint per acre will provide season long control of Canada thistle plus suppression into the following season, resulting in a reduction of the total number of Canada thistle plants in the treated area.

For control of common cocklebur, giant ragweed, common ragweed, sunflower, other annual weeds and Jerusalem artichoke, apply 1/4 to 1/2 pint of Stinger on weeds up to the 5 leaf stage. Use higher rate listed for heavy infestations or when greater residual control is desired.

Corn Inbred Lines or Breeding Stock

Susceptibility of corn to injury from Stinger is highly related to varietal response. Inbred lines or any breeding stock may be injured by Stinger. Contact your seed production agronomist for advice before applying Stinger to inbred lines or breeding stock.

Hand-Held Sprayers

Applications should be made on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff. Prepare the desired volume of spray solution by mixing the amount of Stinger with water as shown in the following table.

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Desired Volume Spray Solution	Amount of Stinger
1 gal	1/4 fl oz
25 gal	1/3 pt
100 gal	1 1/3 pt

Restrictions: Re-treat as necessary, but do not apply more than 2/3 pint of Stinger per acre per year. Do not apply to field corn greater than 24 inches tall. Do not allow livestock to graze treated areas or harvest treated corn silage as feed within 40 days after last treatment.

Christmas Tree Plantations

Timing

Stinger can be safely applied over the top of actively growing: balsam fir, blue spruce, Douglas fir, Fraser fir, grand fir, lodgepole pine, noble fir, ponderosa pine, and white pine. For the Pacific Northwest: do not apply in the first year of transplanting. (Some needle curling has been observed on 1st year transplants.) Apply to actively growing weeds. For control of annual weeds apply Stinger up to the 5 leaf growth stage (for wild buckwheat application at 3 to 5 leaf, but before vining, is recommended). For control of weeds such as Canada thistle and knapweeds, apply after the majority of the basal leaves have emerged, but before bud stage. Later application may result in less consistent control.

Rate

Apply 1/4 to 1/2 pint of Stinger per acre for control of annual weeds. Apply 1/2 to 2/3 pint of Stinger per acre for difficult to control weeds such as Canada thistle and knapweeds. Apply as a broadcast or band application in a minimum of 10 gallons per acre by ground application. For band applications, use the formula under "Sugar Beets" to determine the appropriate rate and volume per treated acre. Apply as often as needed, but do not exceed 2/3 pint per acre. Do not exceed 1/2 pint per acre for blue spruce. Tree injury may occur with the addition of a surfactant or crop oil with Stinger. Do not use unless previous experience shows injury is tolerable.

Grasses Grown For Seed

Timing

Apply only to established grasses before the boot stage. Applications in the boot stage and beyond can result in increased injury. Do not apply to bentgrass unless injury can be tolerated. For control of late emerging Canada thistle, a preharvest treatment may be made after grass seed is fully developed. Treatment of Canada thistle at the bud stage or later may result in less consistent control. Postharvest fall treatments may be made to actively growing Canada thistle after the majority of basal leaves have emerged.

Rate

Use 1/4 to 2/3 pint of Stinger per acre for control of annual weeds and Canada thistle. Re-treat as necessary, but do not exceed 2/3 pint of Stinger per acre per season.

Tank Mixtures for Grasses Grown for Seed

Stinger may be tank mixed with 2,4-D, MCPA, dicamba, or bromoxynil to control additional broadleaf weeds. Refer to the manufacturer's label for use rates and tank mix guidelines. **Note:** Dicamba or bromoxynil tank mixes may be useful in broadening the annual weed control spectrum, but may reduce long term control of perennials such as Canada thistle. Do not tank mix Stinger with 2,4-D, MCPA, or dicamba unless the risk to crop injury is acceptable.

Fallow Cropland

Timing

Stinger can be applied either postharvest, in the spring/summer (during fallow period), or to set-aside acres to control or suppress weeds listed above (refer to rotation restrictions). Apply to young, emerged weeds under conditions that promote active growth. For best results on perennial weeds such as Canada thistle, apply after the majority of the basal leaves have emerged, but before bud stages. Later applications may result in less consistent control. Extreme growing conditions (such as drought or near freezing temperatures) prior to, at, and following the time of application may reduce weed control.

For best results, wait 14 to 20 days after application before cultivating or fertilizing with shank-type applicators to allow for thorough translocation.

Rate

Apply 1/4 to 2/3 pint of Stinger per acre. Use the higher rate on perennial weeds or when the condition of the weeds at the time of treatment may prevent optimum control.

Tank Mixtures for Fallow Cropland

To improve control of certain broadleaf weeds, Stinger may be applied with 0.5 to 2.0 lb a.e. per acre 2,4-D.

Wheat, Barley, and Oats

Apply 1/4 to 1/3 pint of Stinger per acre from the 3 leaf stage up to early boot stage of growth. For control of perennial weeds such as Canada thistle, 1/3 pint of Stinger per acre should be used. Russian knapweed will only be suppressed at this rate.

Note: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 1 week after treatment. Do not harvest hay from treated grain fields.

Tank Mixtures for Wheat, Barley, and Oats

Tank mix 1/4 to 1/3 pint per acre of Stinger with the herbicides listed below for the control of additional weeds.

Active Ingredient	Product	Formulation	Amount of Product per Acre
bromoxynil	Buctril	2 lb/gal	3/4 - 1 pt
chlorsulfuron	Glean	75% DF	1/6 - 1/4 wt oz
dicamba	Banvel	4 lb/gal	1/8 - 1/4 pt
diuron	Direx 4L	4 lb/gal	3/4 - 1 1/4 pt
	Diuron 4L	80% DF	1/2 - 1 lb
	Diuron 80 WDG	80% WP	
	Diuron DF		
MCPA or 2,4-D†		4 lb/gal	1/2 - 1 pt
metribuzin†	Lexone DF Sencor DF	75% DG	2 1/2 - 4 wt oz
metsulfuron methyl†	Ally	60% DF	1/10 wt oz
terbutryn†	Igran 80WP	80% WP	7.5 - 12.5 wt oz
thifensulfuron†	Harmony	75% DF	1/3 - 1/2 wt oz
tribenuron methyl†	Express	75% DF	1/6 - 1/4 wt oz
thifensulfuron†	Harmony Extra	75% DF	1/3 - 2/3 wt oz
tribenuron methyl†			

†Tank mix for application on wheat and barley only.

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Rangeland, Pasture, and Non-crop Uses

Use Requirements for Rangeland, Pasture, and Non-cropland Areas: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is applied to rangeland, pasture, or non-cropland areas.

Rangeland and Permanent Grass Pastures

Use Stinger on forage grasses such as smooth brome, orchardgrass, and Timothy.

Apply 1/2 to 1 1/3 pints of Stinger per acre when weeds are young and actively growing. Grasses are tolerant, but new grass seedlings may be injured to varying degrees until the grass has become well established.

Note: Some forbs are susceptible to Stinger Herbicide. Do not spray pastures containing desirable forbs, especially legumes, unless injury can be tolerated. However, the stand and growth of established perennial grasses is usually improved after spraying, especially when rainfall is adequate and grazing is deferred.

Do not use hay or straw from treated areas for composting or mulching on susceptible broadleaf crops.

There are no grazing restrictions for Stinger at label use rates.

Conservation Reserve Program (CRP) For Seeding To Permanent Grasses Only

Do not use Stinger if legumes or bentgrass are a desired cover during CRP.

Conditions that stress grasses, such as drought, will increase potential for injury to the grass at all stages of growth. Do not use in newly seeded areas until grass is established.

After CRP, do not plant broadleaf crops in treated areas until an adequately sensitive bioassay shows that no detectable clopyralid is present in the soil.

Broadcast Applications (Ground)

Applications of Stinger should be made when perennial grasses have become established (has tillered, developed a good secondary root system, and shows good vigor) since most perennial grasses have shown better tolerance to the herbicide at that stage.

For control of actively growing weeds such as musk thistle, Canada thistle, and knapweed (spotted, diffuse, and Russian), use 2/3 to 1 1/3 pints per acre of Stinger after the majority of basal leaves have emerged, but before bud stage. For the control of wild buckwheat, volunteer sunflower, and musk thistle rosettes, apply 2/3 pint per acre of Stinger. Stinger can also be tank mixed with 1/2 to 1 lb per acre of 2,4-D where species present are sensitive to 2,4-D. For best results, use in 10 or more gallons of water per acre by ground. Increasing the rate of application can increase the risk of injury. Application prior to the flowering stage is recommended (still in the bud stage).

Non-Cropland

For use on non-cropland areas such as fencerows, around farm buildings and equipment pathways. For control of broadleaf weeds, apply 1/4 to 1 1/3 pints of Stinger per acre. The lower rate of 1/4 pint per acre provides acceptable control of weeds only under highly favorable growing conditions and when plants are 1 to 3 inches tall. Apply 1/2 pint per acre when weeds are 3 to 6 inches tall or under dry conditions. Where Canada thistle or knapweeds are the primary pest, best results are obtained by applying 2/3 to 1 1/3 pints of Stinger per acre. To improve spectrum of activity or to increase activity against taller weeds, Stinger may be tank mixed with 0.5 to 2.0 lb a.e. per acre of 2,4-D amine or low volatile ester.

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Warranty Disclaimer

DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

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