

Specimen Label

CLOPYRALID

GROUP

4

HERBICIDE



Stinger®

HERBICIDE

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

Active Ingredient:

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

Other Ingredients..... 59.1%

Total..... 100.0%

Acid Equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 31% (3 lb/gal)

1 - Tip



Tilt container to angle as shown and fill head to desired amount - use vertical scale for measuring. Container should be closed.

2 - Level



Hold container up-right and check the amount for accuracy. Add or subtract as needed, using pour-back scale as guide.

3 - Dispense



Remove cap on head and pour into sprayer or other devices. No fluid will pour from the main container. Replace cap for storage in sealed condition.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-73

Keep Out of Reach of Children

CAUTION

Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin

Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

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

Ground Water Advisory

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.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching surface water via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of clopyralid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

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.

Not for Sale, Use or Distribution in Nassau and Suffolk Counties in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.

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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to fallow cropland, rangeland, pasture, and non-crop areas, do not enter treated areas until sprays have dried. For early entry to treated areas, wear eye protection, chemical-resistant gloves made of any waterproof material, long-sleeved shirt, long pants, shoes and socks.

Storage and Disposal

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

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

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

Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

Refillable containers 5 gallons or larger:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

Nonrefillable containers 5 gallons or larger:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

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, strawberries (perennial), 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.

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

- 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 except as permitted under FIFRA Section 24(c), Special Local Need Registration.
- 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.

Crop Rotation Intervals

Residues of Stinger in treated plant tissues, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops. **Note:** Numbers in parenthesis and superscripts refer to footnotes following tables.

Crop Rotation Intervals for Florida Only

Rotation Crops (1)	Rotation Interval ⁴ (Soils less than 2% organic matter AND rainfall greater than 15 inches during 12 months following application)
barley, canola (rapeseed), cole crops (includes <i>Brassica</i> species grown for seed), field corn, flax, garden beet, grasses, oats, popcorn, spinach, sugar beet, sweet corn, turnip, wheat	anytime
alfalfa, asparagus, grain sorghum, onions, peppermint, safflower, spearmint, strawberry	10.5 months
dry beans, soybean, sunflower	18 months (2)
lentils, peas, potatoes (including potatoes grown for seed), and broadleaf crops grown for seed (excluding <i>Brassica</i> species)	18 months (2, 3)

1. For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.
2. Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. **Restriction:** For these crops, a minimum 10.5-month rotation interval must be observed.
3. For best results, conduct a field bioassay prior to planting these sensitive crops.

4. **Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, Stinger is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

Crop Rotation Intervals for All States Except California, Florida, Idaho, Nevada, Oregon, Utah and Washington

Rotation Crops (1)	Rotation Interval ⁴ (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval ⁴ (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
barley, canola (rapeseed), cole crops (includes <i>Brassica</i> species grown for seed), field corn, flax, garden beet, grasses, oats, popcorn, spinach, sugar beet, sweet corn, turnip, wheat	anytime	anytime
alfalfa, asparagus, grain sorghum, onions, peppermint, safflower, spearmint, strawberry	10.5 months	10.5 months
dry beans, soybean, sunflower	10.5 months	18 months (2)
lentils, peas, potatoes (including potatoes grown for seed), and broadleaf crops grown for seed (excluding <i>Brassica</i> species)	18 months (2)	18 months (2, 3)

- For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.
- Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5-month rotation interval. **Restriction:** For these crops, a minimum 10.5-month rotation interval must be observed.
- For best results, conduct a field bioassay prior to planting these sensitive crops.
- Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, Stinger is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

Crop Rotation Intervals for California, Idaho, Nevada, Oregon, Utah and Washington Only

Rotation Crops (1)	Rotation Interval ⁴ (Areas receiving greater than 18 inches of rainfall – not including irrigation)	Rotation Interval ⁴ (Areas receiving less than 18 inches of rainfall – not including irrigation)
barley, canola (rapeseed), cole crops (includes <i>Brassica</i> species grown for seed), field corn, flax, garden beet, grasses, oats, popcorn, spinach, sugar beet, sweet corn, turnip, wheat	anytime	anytime
asparagus, grain sorghum, onions, peppermint, spearmint, strawberry	12 months	12 months
alfalfa, dry beans, soybean, sunflower	12 months	18 months (2, 3)
broadleaf crops grown for seed (excluding <i>Brassica</i> species), carrot (2), celery (2), cotton (2), lentils, lettuce (2), melons (2), peas, potatoes (including potatoes grown for seed), safflower, and tomato (2)	18 months (2)	18 months (2, 3)

- For best results, conduct a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 12 months following application.
- Follow an 18-month crop rotation due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 12-month rotation interval. **Restriction:** For these crops, a minimum 12-month rotation interval must be observed.
- Crop injury and/or yield loss may occur up to 4 years after application. For best results, conduct a field bioassay prior to planting these sensitive crops. See instructions above.
- Precaution:** The above intervals are based upon average annual precipitation regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, Stinger is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

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.

Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size

When applying sprays with clopyralid or mixing with other active ingredients that require a Coarse or coarser, apply only as a coarse to ultra coarse spray (ASABE standard 572.1) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays mixed with other active ingredients that require a Medium or more fine spray, apply only as a medium coarse to ultra coarse spray (ASABE standard 572.1) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 10 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: (a) conditions of temperature inversion exist, or (b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

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.

Sprayer Clean-Out

To avoid injury to desirable plants, thoroughly clean equipment used to apply Stinger before re-using it to apply any other chemicals.

- Rinse and flush application equipment thoroughly at least three times with water after use. Dispose of rinse water by applying to treatment area or to non-cropland area away from water supplies.
- During the second rinse, add 1 quart of household ammonia for every 25 gallons of water. Circulate the solution through the entire system

so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.

- Flush the solution out of the spray tank through the boom.
- Rinse the system twice with clean water, recirculating and draining each time.
- Remove nozzles and screens and clean separately.

Mixing Directions

Stinger - Alone

1. Add 3/4 of the required spray volume to the spray tank and start agitation.
2. Add the required amount of Stinger.
3. Add any surfactants, adjuvants or drift control agents according to manufacturer's label.
4. Agitate during final filling of the spray tank and maintain sufficient agitation during application to ensure uniformity of the spray mixture.

Precaution: Allow time for thorough mixing of each spray ingredient before adding the next. If allowed to stand after mixing, agitate spray mixture before use.

Stinger - Tank Mix

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mixing Restrictions:

- Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment have been adequately cleaned. (See Sprayer Clean-Out.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of Stinger and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in the required order and their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

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.

Crop or Use Site	Rate Range (pt/acre)	Maximum Use Rate ¹ (pt/acre/growing season)
spinach	1/4 – 1/2	1/2
barley, oats, wheat	1/4 - 1/3	1/3
Christmas tree and cottonwood/poplar and eucalyptus tree plantations, fallow cropland, field corn, grasses grown for seed, sugar beet	1/4 - 2/3	2/3
canola (rapeseed), cole crops (<i>Brassica</i> species), crambe, garden beet, southern pine seedbeds	1/4 – 1/2	1/2
apple, popcorn, stone fruits, strawberries, sweet corn	1/3 - 2/3	2/3
turnip	1/3 – 1/2	1/2
peppermint, spearmint	1/3 - 1	1
noncropland, non-leguminous trees, permanent grasses on CRP land, rangeland and permanent grass pastures	1/3 - 1 1/3	1 1/3

¹Do not exceed maximum rate in rate range per growing season.

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 must 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.

Amount of Stinger per Gallon of Spray to Equal Specified Broadcast Rate					
1/4 pt/acre	1/3 pt/acre	1/2 pt/acre	2/3 pt/acre	1 pt/acre	1 1/3 pt/acre
1/10 fl oz (2.7 mL)	1/8 fl oz (3.6 mL)	1/5 fl oz (5.4 mL)	1/4 fl oz (7.3 mL)	3/8 fl oz (11 mL)	0.5 fl oz (15 mL)

Use the following table for converting 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

Band Application

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

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

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

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.

Broadleaf Weeds Controlled and Guidelines for Control¹

Note: Letter in parentheses (-) after listed weed indicates if life cycle is annual (a), biennial (b), or perennial (p).

Weed Species	Stage of Growth	Rate for Control ² (pt/acre)
biennial wormwood (a, b) ³ black medic clover (a) bull thistle (b) clover (a) cocklebur (a) coffeeweed (a) common burdock (b) common cocklebur (a) common groundsel (b) common ragweed (a) common teasel (b) cornflower (bachelor button) (a) curly dock (p) dandelion (p) false chamomile (scentless) (a) galinsoga (a) giant ragweed (a) hop clover (a) horseweed (a) Jerusalem artichoke (p) jimsonweed (a) ladythumb (a) ⁴ lambert locoweed (p) marshelder (a) mayweed chamomile (dogfennel) (a) meadow salsify (goatsbeard) (b) musk thistle (b) narrowleaf hawksbeard (a) orange hawkweed (p) oxeye daisy (p) pineappleweed (a) prickly lettuce (a) ragweeds (a) red clover (p) red sorrel (p) sicklepod (a) sunflower (a) sweet clover (b) vetch (a) volunteer alfalfa (p) (from seed only) volunteer beans (a) volunteer lentils (a) volunteer peas (a) volunteer soybean (a) white clover (p) white locoweed (p) yellow hawkweed (p) yellow starthistle (a)	up to 5 leaf	1/4 - 1/2
wild buckwheat (a)	1 - 3 leaf stage, but before vining	1/2
black nightshade (a) buffalobur (a) ³ cutleaf nightshade (a) eastern black nightshade (a) hairy nightshade (a) nightshade spp. (a)	2 - 4 leaf	
green smartweed (a) ⁴ smartweeds (suppression)	2 - 3 leaf	
annual sowthistle (a) (suppression) Canada thistle (p) perennial sowthistle (p) ⁴ sowthistle (a) (suppression)	rosette up to bud stage	degree of infestation: light - 1/3 moderate to heavy - 1/2 - 2/3
spotted/diffuse knapweeds (b)	up to bud stage	1/2 - 2/3
Russian knapweed (p) ⁴		2/3 - 1 1/3

¹This table is provided as a general reference only. Refer to use directions for specific crop or use site for application rates.

²Where a rate range is provided, use a lower rate in the rate range for light to moderate infestations under good growing conditions and a higher rate in the rate range for dense infestations or under less favorable growing conditions such as drought.

³Not registered for use in California.

⁴These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree and duration of weed control will vary with weed size and density, application rate and coverage, and growing conditions before, during, and after treatment. For perennial weeds, Stinger will control the 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.

Use Sites

Apple

(Not for Sale, Use or Distribution in Nassau and Suffolk Counties in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.)

Target Broadleaf Weeds	Application Rate (pint/acre)	Use Restrictions
aster burdock clover, red clover, white curly dock dandelion goldenrod horseweed (marestail) nightshade, black nightshade, hairy pineappleweed sowthistle, annual thistle, Canada thistle, musk vetch volunteer alfalfa	1/3 – 2/3 (0.125 - 0.25 lb ae/acre)	• Preharvest interval: Do not apply within 30 days of harvest. • Make one to two broadcast applications per crop per year. Do not exceed a total of 2/3 pint per acre. • Apply Stinger to non-bearing (well established trees, 1 year or older) and bearing trees. • East of the Rocky Mountains, do not apply Stinger during bloom.
		Use Precautions
		• Avoid direct contact with foliage, fruit, or tree trunks.

Use Stinger for postemergence control of broadleaf weeds listed above that are infesting apples.

Application Timing

Apply Stinger to clover and vetch from weed emergence up to the 5-leaf stage of growth. Apply Stinger to nightshade (black and hairy) at the 2- to 4-leaf stage of growth. For control of Canada thistle and annual sowthistle, apply Stinger from rosette up to bud stage.

Application Rate

Apply 1/3 to 2/3 pint of Stinger per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Tank Mixtures: Stinger may be tank mixed with other herbicides labeled for use on apple. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Barley, Oats and Wheat not underseeded with legume (Not Registered for Use in Florida)

Application Rate

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

Specific Use Restrictions:

- Do not permit lactating 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.

Brassica (Cole) Leafy Vegetables (Crop Group 5)¹

(For use and distribution only in the states of Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Maine, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Virginia, West Virginia, and Wisconsin)

(Not for Sale, Use or Distribution in Nassau and Suffolk Counties in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.)

Brassica (cole) leafy vegetables (crop group 5) including broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, cauliflower, cavalo broccolo, Chinese broccoli (gai ion), Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens

Application Timing

Apply uniformly with ground equipment in a minimum of 10 to 40 gallons of water per acre. For suppression of Canada thistle, apply after the majority of basal leaves have emerged, but prior to bud stage, and at least 30 days prior to harvest.

Target Broadleaf Weeds	Stinger (pint/acre)
chamomile clover common cocklebur dandelion galinsoga pineappleweed prickly lettuce ragweed smartweed wild buckwheat	1/4 - 1/2
annual sowthistle ¹ Canada thistle ¹	1/3 – 1/2

¹Suppression only.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre (0.187 lb ae/acre) per year.
- In New York and California, the maximum application rate for Stinger is 2/3 pint per acre per growing season. Do not exceed the cumulative amount of 2/3 pint of Stinger (0.25 lb a.e.) per acre per crop year.
- In Florida, Stinger may be used only on cabbage, Chinese cabbage (napa), and Chinese mustard cabbage (gai choy).

Canola (Rapeseed) and Crambe (Not Registered for Use in California and Florida)

Application Timing

Apply to canola or crambe in the 2- to 6-leaf stage of crop growth at rates shown in the following table. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information. Apply 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).

Target Broadleaf Weeds	Stinger (pint/acre)
Canada thistle	1/3 for top growth suppression
Canada thistle perennial sowthistle	1/2 for season long control
annual sowthistle biennial wormwood dandelion dock, curly false chamomile green smartweed mayweed chamomile nightshade species sunflower wild buckwheat	1/4 - 1/2

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 50 days of harvest.
- Make one broadcast application per crop per year.
- Do not apply by aircraft

Christmas Tree Plantations (Not Registered for Use in Florida)

Application Timing

Use Stinger for over the top application to actively growing balsam fir, blue spruce, Douglas fir, Fraser fir, grand fir, lodgepole pine, noble fir, ponderosa pine, and white pine. In the Pacific Northwest, do not apply in the first year of transplanting because some needle curling has been observed on first year transplants. For control of annual weeds, apply Stinger from weed emergence up to the 5-leaf stage of growth. For control of wild buckwheat, apply at 3- to 5-leaf stage of growth, but before vining. For control of weeds, such as Canada thistle and knapweeds, apply after the majority of the basal leaves have emerged up to bud stage. Later application may result in less consistent control.

Application 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. Use the formulas under Band Application to determine the rate and volume per treated acre.

Stinger may be applied as a spot treatment using a hand held sprayer at an equivalent broadcast rate of 1/2 to 2/3 pint per acre. Refer to Hand Held Sprayers under Spot Treatment in the Application Directions section.

Specific Use Restrictions:

- Re-treat as necessary, but do not exceed 2/3 pint of Stinger per acre per annual growing season.
- **Blue spruce:** Do not exceed 1/2 pint per acre per annual growing season.
- Do not apply with an air blast sprayer.

Specific Use Precautions

- 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.

Corn (Field, Pop, Sweet)
(Not Registered for Use in Florida)

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

Weed Control

For control of common cocklebur, common ragweed, giant ragweed, sunflower, other annual weeds and Jerusalem artichoke, apply 1/4 to 1/2 pint of Stinger per acre from weed emergence up to the 5-leaf stage of growth. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information.

Control of Canada Thistle

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 up to 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 is influenced by growing conditions, density and size of thistle plant at 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 application rate 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.

Field Corn**Application Timing**

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 gallons or more of spray volume per acre to ensure uniform and thorough spray coverage of the weed foliage. Use only spray nozzles designed for herbicide application. Using flat fan nozzles provides the best coverage and distribution of chemical on the plant foliage. Use spray pressures (at the boom) specified by nozzle manufacturers to obtain desired spray volume. Use higher spray volumes when weed foliage is dense.

Tank Mixes or Sequential Applications

See Tank Mixing section under Mixing Directions. If Stinger is applied sequentially or in combination with Hornet® WDG broadleaf blend herbicide to the current corn crop, the maximum application rate at which Stinger may be applied to field corn is indicated in the following table:

Rate of Hornet WDG Applied to Current Corn Crop (oz/acre)	Maximum Application Rate for Stinger (fl oz/acre)
2	8.1
3	6.8
4	5.4
5	4.0

Restriction: Maximum use rate for clopyralid is 0.25 lb a.e. per acre. One ounce of Hornet WDG contains 0.031 lb of clopyralid. One fluid ounce of Stinger contains 0.023 lb of clopyralid.

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

Stinger may be applied as a spot treatment using a hand held sprayer at an equivalent broadcast rate of 2/3 pint per acre. Refer to Hand Held Sprayers under Spot Treatment in the Application Directions section. Make applications on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff.

Specific Use 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 more 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.

Popcorn and Sweet Corn
(Not Registered for Use in California)
Application Timing

For popcorn, apply Stinger any time after popcorn emergence through 24-inch tall popcorn. For sweet corn, apply Stinger any time after sweet corn emergence through 18-inch tall sweet corn.

Application Rate

Apply 1/3 to 2/3 pint of Stinger per acre uniformly with ground equipment as a broadcast or directed spray in 10 to 20 gallons total spray volume per acre. For control of Canada thistle, apply Stinger 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. For control of annual sowthistle, common cocklebur, Jerusalem artichoke, jimsonweed, ragweed (common and giant), and sunflower, apply Stinger from weed emergence up to the 5-leaf stage of growth. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired. Consult the table entitled Broadleaf Weeds Controlled and Guidelines for Control for additional information.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest for ears and forage and within 60 days of harvest for stover.
- Make one to two broadcast applications per crop per year, not to exceed a total of 2/3 pint per acre.
- **Re-Treatment Interval:** 21 days.
- Do not apply to popcorn more than 24 inches tall or sweet corn more than 18 inches tall.
- Apply only to sweet corn or popcorn that is to be used for processing.

Cottonwood/Poplar and Eucalyptus Tree Plantations
(Not Registered for Use in Florida)
Application Timing

Stinger may be used for selective postemergence control of labeled broadleaf weeds in new and established plantings of cottonwood/poplar and eucalyptus tree plantations.

Application Rate

Apply as a broadcast foliar spray over trees or as a banded or directed spray at a rate of 1/3 to 2/3 pint per acre. Apply in 10 gallons or more total spray volume per acre using ground equipment only. Multiple applications of Stinger may be made as long as the total rate per growing season does not exceed 1 1/3 pints per acre. Apply to new plantings only after they are well established as indicated by several inches of new healthy growth.

See Broadleaf Weeds Controlled and Guidelines for Control for specified rates and timing for specific susceptible annual, biennial, and perennial weeds.

Hand Held Sprayers

Spot applications using hand held equipment are also allowed, but avoid contact with tree foliage or limit it to lower branches. Apply to weeds on a spray-to-wet basis with uniform and complete spray coverage. Do not spray to the point of runoff. Prepare a spray solution by adding 1/4 fl oz of Stinger per gallon of water. When applied at 1 gallon of spray per 1000 sq ft, this spray concentration is equivalent to a broadcast rate of 2/3 pint per acre.

Specific Use Restrictions:

- Do not tank mix Stinger with other herbicides labeled for this use unless spray avoids all contact with tree foliage.

Specific Use Precautions

- Stinger will not control certain broadleaf weeds including mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian thistle and bindweed.

Fallow Cropland (Not Registered for Use in Florida)

Application Timing

Stinger can be applied either postharvest, in the spring/summer (during fallow period), or to set aside acres to control or suppress listed weeds (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 up to bud stage. Later applications may result in less consistent control.

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

Application Rate

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

Tank Mixes

To improve control of certain broadleaf weeds, Stinger may be applied with 0.5 to 2 lb a.e. of 2,4-D per acre. See Tank Mixing section under Mixing Directions.

Garden Beet (Not Registered for Use in California and Florida)

Use Stinger for postemergence control of common ragweed, galinsoga, nightshade (black, cutleaf, Eastern black and hairy), prickly lettuce, sowthistle, sweet clover, and wild buckwheat infesting garden beet.

Application Timing

Apply to garden beet in the 2- to 8-leaf stage of crop growth when weeds are young and actively growing. Apply Stinger to wild buckwheat at the 1- to 3-leaf stage of growth before vining begins. Apply Stinger to common ragweed and sweet clover from weed emergence up to the 5-leaf stage of growth. Apply Stinger to all species of nightshade at the 2- to 4-leaf stage of growth. Apply Stinger to sowthistle from rosette up to bud stage. Apply in 10 gallons or more total spray volume per acre with ground equipment.

Application Rate

Apply 1/4 to 1/2 pint of Stinger per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre.

Grasses Grown for Seed (Not Registered for Use in Florida)

Application Timing

Apply only to established grasses before the boot stage of growth. Applications in the boot stage and beyond can result in increased potential for 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.

Application 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 Mixes

Stinger may be tank mixed with 2,4-D, MCPA, dicamba, or bromoxynil to control additional broadleaf weeds. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See Tank Mixing section under Mixing Directions. **Precaution:** 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.

Peppermint and Spearmint (Not Registered for Use in Florida)

Stinger may be used for selective postemergence control of specific annual and perennial broadleaf weeds infesting peppermint and spearmint.

Application Timing

Treat annual weeds when they are small and actively growing before they send up a flower stalk. For Canada thistle, apply Stinger after the majority of basal leaves have emerged, but prior to bud stage.

Application Rate

Apply as a broadcast foliar spray in 10 gallons or more total spray volume per acre using ground equipment only. A nonionic surfactant of at least 80% active ingredient may be added at a rate of 1 pint per 100 gallons of spray solution.

Application Timing and Weeds Controlled	Stinger (pint/acre)
fall treatment only (Sept. 15 to first frost) annuals perennials hard-to-kill perennials (Canada thistle, dandelion)	1/2 2/3 1
spring treatment only annuals perennials	1/3 1/2
fall plus spring treatment	maximum of 2/3 in fall plus 1/3 in spring

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Do not apply more than 1 pint per acre per growing season.
- Treated peppermint and spearmint may be used for distillation (oil extraction) only.
- Do not feed spent peppermint and spearmint hay slugs to livestock.
- Peppermint and spearmint straw, hay or spent hay (slugs) from treated areas cannot be used for composting or mulching. If hay slugs are disposed of on cropland, distribute in a thin layer and incorporate. Do not dispose of hay slugs on land to be rotated to a susceptible crop. (See Residues in Plants or Manure section.)

Specific Use Precautions

- Temporary discoloration or malformation of peppermint and spearmint leaves may occur following treatment.
- Stinger will not control many broadleaf weeds, such as chickweed, field bindweed henbit, kochia, lambsquarters, mustards, pigweed, and Russian thistle.

Southern Pine Seedbeds in Forest Nurseries

(Registered for Use in Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) (Not Registered for Use in Florida)

Stinger may be applied over the top of loblolly pine, slash pine, and longleaf pine to control sicklepod and other susceptible broadleaf weeds in southern pine seedbeds in forest nurseries. Apply as a broadcast or spot treatment from May through July when weeds are actively growing.

Application Timing

For best results, apply when weeds are small and actively growing. For control of sicklepod, apply after the majority of basal leaves have emerged.

Application Rate

Apply at a broadcast rate of 1/4 to 1/2 pint per acre in a spray volume of 20 gallons or more per acre. Application may be made any time after May 1, but some needle curling may occur if applied during active conifer growth. When making spot applications, use a calibrated boom, or if a hand-held sprayer is used, care must be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Otherwise, do not use more than 1/5 fl oz (1 tsp.) of Stinger per gallon of spray and direct spray onto weeds. Avoid spraying pine seedlings whenever possible.

Specific Use Precautions:

- Application of Stinger during active growth of conifers may cause some needle curling.

Specific Use Restrictions:

- Do not use surfactants or crop oils in spray mixtures.

Spinach (Not Registered for Use in California and Florida)

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 Restrictions:

- **Preharvest Interval:** Do not apply within 21 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 1/2 pint per acre.
- Do not apply by aircraft.

Specific Use Precautions

- 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.

Stone Fruits (Crop Group 12)¹ (Not Registered for Use in Florida)

¹Stone fruits (crop group 12) including apricot, chickasaw plum, damson plum, fresh prune, Japanese plum, nectarine, peach, plum, plumcot, sweet cherry, tart cherry

Use Stinger for postemergence control of annual sowthistle, Canada thistle, clover, dandelion, horseweed, musk thistle, nightshade (black and hairy), and vetch infesting stone fruits.

Application Timing

Apply Stinger to clover and vetch from weed emergence up to the 5-leaf stage of growth. Apply Stinger to nightshade (black and hairy) at the 2- to 4-leaf stage of growth. For control of Canada thistle and annual sowthistle, apply Stinger from rosette up to bud stage.

Application Rate

Apply 1/3 to 2/3 pint of Stinger per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Specific Use Precautions and Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make one to two broadcast applications per crop per year, not to exceed a total of 2/3 pint per acre.

Perennial Strawberries (Not for use in California)

Use Stinger for control of various annual and perennial broadleaf weeds infesting perennial strawberries post-harvest.

Application Rate

Apply one application of Stinger after harvest at 1/3 to 2/3 pint per acre. Apply uniformly with ground equipment in a minimum of 10 gallons of water per acre. For control of Canada thistle from after harvest to early fall apply Stinger after the majority of basal leaves have emerged but prior bud stage.

Specific Use Restrictions

- Do not exceed 2/3 pint per acre per year.
- Do not tank mix with other herbicides registered for use on strawberries.
- Do not use surfactants when applying Stinger to strawberry.
- Do not apply by aircraft.
- Do not apply within 6 to 8 hours of expected rainfall or irrigation.

Specific Use Precautions

- Some leaf cupping may occur. Do not use if unwilling to accept minor leaf injury.

Sugar Beet (Not Registered for Use in Florida)

Use Stinger for the control of various annual and perennial broadleaf weeds infesting sugar beet.

Application Rate

Apply 1/4 to 2/3 pint of Stinger per acre with ground equipment as a broadcast foliar spray or band treatment or with aerial equipment in 5 gallons or more total spray volume per acre. See instructions for band application under Application Directions in the Product Information section. Apply in 10 gallons or more 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

For annual weed control apply 1/4 to 1/2 pint of Stinger per acre from weed emergence up to the 5-leaf stage of growth. Apply to wild buckwheat at the 1- to 3-leaf stage of growth 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 up to 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 herbicidal 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 to control weeds, such as wild buckwheat, Stinger may be applied in combination with labeled rates of a product containing phenmedipham/desmedipham, desmedipham, triflurosulfuron, or other products registered for postemergence application in sugar beets. For best results, tank mix 1/4 pint of Stinger per acre with a product containing phenmedipham/desmedipham or desmedipham followed one to two weeks later by a second application of 1/4 to 1/3 pint of Stinger per acre tank mixed with a product containing phenmedipham/desmedipham or desmedipham. Stinger may also be tank mixed with a grass herbicide containing sethoxydim. Crop oil or Dash surfactant may be added to the tank mixture to optimize grass weed control. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See Tank Mixing section under Mixing Directions.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Re-treat as necessary, but do not exceed 2/3 pint of Stinger per acre per season.
- Aerial application of Stinger in sugar beet is allowed only in the states of Colorado, Idaho, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, and Wyoming.

Turnip

(Not Registered for Use in California and Florida)

Use Stinger for postemergence control of common ragweed, galinsoga, prickly lettuce, sweet clover, and wild buckwheat and postemergence suppression of sowthistle infesting turnip harvested for roots and tops.

Application Timing

Apply Stinger to wild buckwheat at the 1- to 3-leaf stage of growth before vining begins. Apply Stinger to common ragweed and sweet clover from weed emergence up to the 5-leaf stage of growth. For suppression of sowthistle, apply Stinger from rosette up to bud stage.

Application Rate

Apply 1/3 to 1/2 pint of Stinger per acre with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate in the rate range for heavy infestations or when greater residual control is desired.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 30 days of harvest of turnip roots or within 15 days of harvest of turnip tops.
- Make one broadcast application per crop per year.

Rangeland, Pasture, CRP and Non-Crop Uses (Not Registered for Use in Florida)

Rotation to Broadleaf Crops: Do not plant broadleaf crops in treated areas until an adequately sensitive bioassay shows that no detectable clopyralid is present in the soil. (See Crop Rotation Restrictions in Product Information section.)

Rangeland and Permanent Grass Pastures

Apply 1/2 to 1 1/3 pints of Stinger per acre when weeds are young and actively growing. Established grasses are tolerant to Stinger, but new grass seedlings may be injured to varying degrees until the grass has become well established as indicated by vigorous growth and development of tillers and secondary roots.

Precaution: Some forbs (desirable broadleaf forage plants) are susceptible to Stinger. 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. (See Residues in Plants or Manure section.)

There are no further restrictions on grazing or hay harvest following application of Stinger at labeled 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 of plant stress, such as drought, will increase potential for injury to grasses at all stages of growth. Do not apply to newly seeded areas until grass is established.

Application Timing: Apply Stinger when perennial grasses are well established as indicated by vigorous growth and development of tillers and secondary roots. At this stage, most perennial grasses have shown adequate tolerance to Stinger. For optimum results, apply prior to the flowering stage (still in the bud stage).

Application Rate: For control of actively growing weeds, such as Canada thistle, knapweed (spotted, diffuse, and Russian), and musk thistle, apply 2/3 to 1 1/3 pints of Stinger per acre after the majority of basal leaves have emerged up to bud stage. For control of musk thistle rosettes, volunteer sunflower, and wild buckwheat, apply 2/3 pint of Stinger per acre. For best results, use in 10 gallons or more of water per acre by ground. Increasing the application rate increases the risk of injury.

Tank Mixes: Stinger can also be tank mixed with 1/2 to 1 lb of 2,4-D per acre where species present are sensitive to 2,4-D. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See Tank Mixing section under Mixing Directions.

Non-Cropland

Stinger may be applied in non-cropland areas, such as fencerows, around farm buildings and equipment pathways. **Restriction:** Stinger is not registered for use in landscaping or on turfgrass or lawns.

Application Rate: 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.

Tank Mixes: To improve spectrum of weed control, or to increase control of more mature weeds, Stinger may be tank mixed with 0.5 to 2 lb a.e. of 2,4-D amine per acre or low volatile ester herbicide or other herbicides registered for this use site. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See Tank Mixing section under Mixing Directions.

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Revisions:

- 1 Update Mode of Action Table
- 2 Remove "or by incineration" from throughout Storage and Disposal section.
- 3 Removed statement, "Do not apply Stinger by Aircraft to other labeled....supplemental labeling."
- 4 Throughout Crop Rotation Interval section revised "Precaution" to "Restriction" and removed "to avoid illegal residues in the harvested crop."
- 5 Droplet size added the specific ASABE standard and updated the descriptors for the spray size.
- 6 Under Tank Mix 1) Added the statement, "It is the pesticide user's... of each product in the tank. 2) "Changed "Precaution" to "Restriction"
- 3) Removed the first bullet under Restrictions and first sentence of second bullet.
- 7 Under Apple, 1) moved "Avoid direct contact with foliage, fruit, or tree trunks" to "Use Precaution" in table. 2) Revised last statement under "Tank Mixtures to new standard, "It is the pesticide user's...in the tank mixture."
- 8 Added "Do not apply by aircraft" to Restriction under Canola...and also Spinach, and Perennial Strawberries.
- 9 Added to Strawberries, "Do not apply within 6 to 8 hours of expected rainfall or irrigation.
- 10 Revised statement about New York State to read: Not for Sale, Use or Distribution in Nassau and Suffolk Counties in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.
- 11 Corrected the Application Rate table range for spinach to match the use rate under the Spinach Use section that was revised in 2009.
- 12 Under Peppermint and Spearmint revised bullet # 6 of Specific Use Precautions and Restrictions to read: Temporary discoloration or malformation of peppermint and spearmint leaves may occur following treatment.
- 13 Remove California restriction on Stone Fruit
- 14 Add Strawberries (perennial) use and add it where uses are listed on the label
- 15 Update trademark references to: ®™ Trademarks of Dow AgroSciences, DuPont or Pioneer and their affiliated companies or respective owners