



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
34704-885

Date of Issuance:  
AUG 24 2005

NOTICE OF PESTICIDE:  
  x   Registration  
       Reregistration

(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Clopyralid

Name and Address of Registrant (include ZIP Code):

Loveland Products Inc.  
PO Box 1286  
Greeley, CO 80632-1286

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes listed below before you release the product for shipment:

a. Add the phrase, "EPA Reg. No. 34704-885".

b. Policy and Criteria Notice 2163.1 states that the Agency will not conduct a detailed review of such liability disclaimers or purported buyer agreement to assume risk; the approval of labels with such statements should not be construed as a decision by the Agency that the language is not misleading and that the label language might eventually have to change.

Signature of Approving Official:

*Joanne J. Miller*

Date:

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3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure





# CLOPYRALID

For selective postemergence control of broadleaf weeds in asparagus, canola, Christmas tree plantations, tree plantations, fallow cropland, field corn, garden beet, grasses grown for seed, mint, popcom, spinach, stone fruits, sugarbeet, sweet corn, turnip, barley, oats and wheat not underseeded with a legume, conservation reserve program (CRP) acres, non-cropland, and rangeland and permanent grass pastures.

**ACTIVE INGREDIENT:**  
 Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt ..... 40.9%

**INERT INGREDIENTS** ..... 59.1%

**TOTAL** 100.0%

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

## 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.)

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS 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, and protective eyewear.

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.

### FIRST AID

<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  
**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL:**  
1-800-301-7976.

### USER SAFETY RECOMMENDATIONS

Users should:  
Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

### 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.

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.

### 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.

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 intervals. 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, and 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 agricultural 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 or disposal.  
**PESTICIDE STORAGE:** Store above 28°F and 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). Then offer for recycling or reconditioning, or 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). Then offer for recycling or reconditioning, or 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. For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

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**GENERAL INFORMATION**

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

**Precautions and Restrictions**

- Use directions in Loveland Products supplemental labeling may supersede directions or limitations in this labeling.
- In California and New York, the maximum application rate for Clopyralid is 2/3 pint per acre per growing season. Do not exceed a cumulative amount of 2/3 pint (0.25 lb acid equivalent (a.e.)) of clopyralid per acre per crop year.
- Not for Sale, Use or Distribution in Nassau and Suffolk Counties in New York State.
- Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.
- Clopyralid may be applied by aircraft on the following crops: spinach, canola (rape seed), and crambe. Do not apply Clopyralid by aircraft to other labeled crops unless otherwise permitted by Loveland Products supplemental labeling or product bulletins.
- Do not use in greenhouses.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **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.
- **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 untreated 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. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), and 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, do not plant the field to the test rotational crop; 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 Clopyralid in treated plant tissues, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops.

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

**Note:** Numbers in parenthesis and † refer to footnotes following tables.

Rotation Crops (†)	Rotation Interval † (Soils greater than 2% organic matter AND rainfall more than 15 inches during 12 months following application)	Rotation Interval † (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months following application)
Barley, canola (rapeseed), cole crops ( <i>Brassica</i> species), flax, garden beet, grasses, field corn, oats, popcorn, spinach, sugar beet, sweet corn, turnip, wheat	Anytime	Anytime
alfalfa, asparagus, grain sorghum, mint, onions, safflower, 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)

1. A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.
2. An 18-month crop rotation is recommended due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 10.5 month rotation interval. **Note:** for these crops, a minimum 10.5 month rotation interval must be observed to avoid illegal residues in the harvested crop.
3. A field bioassay is also recommended prior to planting these sensitive crops. See instructions above.

Crop Rotation Intervals for California, Idaho, Nevada, Oregon, Utah and Washington Only 5/10

Rotation Crops (†)	Rotation Interval † (Areas receiving greater than 18 inches of rainfall – not including irrigation)	Rotation Interval † (Areas receiving less than 18 inches of rainfall – not including irrigation)
barley, canola (rapeseed), cole crops (includes <i>Brassica</i> species grown for seed), flax, garden beet, grasses, field corn, oats, popcorn, spinach, sugarbeet, sweet corn, turnip, wheat	Anytime	Anytime
asparagus, grain sorghum, mint, onions, 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)

1. A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 12 months following application.
2. An 18-month crop rotation is recommended due to the potential for crop injury unless previous experience has shown no crop injury with the minimum 12 month rotation interval. **Note:** for these crops, a minimum 12 month rotation interval must be observed to avoid illegal residues in the harvested crop.
3. Crop injury and/or yield loss may occur up to 4 years after application. A field bioassay is also recommended prior to planting these sensitive crops. See instructions above.

†**Note:** The above intervals are based on average annual precipitation, regardless of irrigation practices. Observance of recommended crop rotation intervals should result in adequate safety to rotational crops.

However, Clopyralid is dissipated in the soil by microbial activity and the rate of microbial activity is dependent on 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 (<2.0%) 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.

**AVOIDING INJURY TO NON-TARGET PLANTS**

This plant can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, do not apply Clopyralid 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 guidance on Crop Rotation Restrictions.)

**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 crops. 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 removed 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 soil until soil is settled by rainfall or irrigation or irrigate shortly after application.

**Avoid Spray Drift**

Avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during active growth or dormant periods. Use coarse to minimize drift. To aid in further reducing drift, a drift control or deposition agent suitable for agricultural use may be used with this product. If used, follow all use recommendations and precautions on the product label.

**Ground Application:** With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible, by applying 10 gallons or more of spray per acre, by keeping the operating spray pressures at the manufacturer's minimum recommended pressures for the specified nozzle type used (low pressure nozzles are available from spray equipment manufacturers), and by spraying when the wind velocity is low (follow state regulations). Avoid application under completely calm conditions which may be conducive to air inversion. In hand-gun applications, select the minimum pressure required to obtain adequate plant coverage without forming a mist. Do not apply with a mist blower.

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**Aerial Application:** With aircraft, drift can be lessened by using straight stream nozzles directed straight back; by using a spray boom no longer than ¾ the wing span of the aircraft; by using drift control systems or drift control additives; and, by keeping spray pressures low enough to provide coarse spray droplets. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions.

**Do not apply by aircraft when an air temperature inversion exists.** Such a condition is characterized by little or no wind and lower air temperature near the ground than at higher levels. The use of a smoke device on the aircraft or continuous smoke column at or near site of application will indicate air direction and velocity, and whether a temperature inversion is present, as indicated by horizontal layering of the smoke.

**Sprayer Clean-Out**

To avoid injury to desirable plants, equipment used to Clopyralid should be thoroughly cleaned before re-using to apply any other chemicals.

1. Rinse and flush application equipment thoroughly at least 3 times with water after use. Dispose of rinse water by application to treatment area or 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 minutes). 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. Remove nozzles and screens and clean separately.

**Mixing Instructions**

1. Add ¾ of the required spray volume to the spray tank and start agitation.
2. Add the required amount of Clopyralid.
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.

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

**Tank Mixing**

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.

**Tank Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. 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 has been adequately cleaned. (See instructions for 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 Clopyralid 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, jells, 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 Clopyralid are rainfast within 6 hours after application.

**Application Rates**

Generally, application rates at the lower end of the recommended 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), the higher rates within the rate range will be needed. 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 † (pt/acre/growing season)
spinach	1/6 - 1/3	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
garden beet, canola (rapeseed), crambe	1/4 - 1/2	1/2
mint, stone fruits, popcorn, sweet corn	1/3 - 2/3	2/3
turnip	1/3 - 1/2	1/2
permanent grasses on CRP land, noncropland, non-leguminous trees, rangeland and permanent grass pastures	1/3 - 1 1/3	1 1/3
asparagus	1/2 - 2/3	2/3

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

**Use of Adjuvants**

Addition of surfactants, crop oils, or other adjuvants is not usually necessary when using Clopyralid. 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. 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 of 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, spray volume should be increased to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoiding Injury to Non-Target Plants.

**Spot Treatments**

To prevent misapplication, it is recommended that spot treatments be applied only with a calibrated boom or with hand sprayers according to directions provided below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on an area of 1000 sq. ft. Mix the amount of Clopyralid (fl oz or ml) corresponding to the desired broadcast rate in 1 or more gallons of spray. To calculate the amount of Clopyralid 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 ÷ 1000 = 3.5). An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Amount of Clopyralid 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)

† 1 fl oz + 29.6 (30) 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**

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

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

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

**Broadleaf Weeds Controlled †**

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

- |                                    |                                  |
|------------------------------------|----------------------------------|
| artichoke, Jerusalem (p)           | coffee-weed (a)                  |
| buckwheat, wild (a)                | cornflower (bachelor button) (a) |
| buffalobur (a) ††                  | dandelion (p)                    |
| burdock, common (b)                | dock, curly (p)                  |
| chamomile, false (scentless) (a)   | galinsoga (a)                    |
| chamomile, mayweed (dogfennel) (a) | groundsel, common (b)            |
| clover, black medic (a)            | hawksbeard, narrowleaf (a)       |
| clover, hop (a)                    | hawkweed, orange (p)             |
| clover, sweet (b)                  | hawkweed, yellow (p)             |
| clover, red (p)                    | horsetweed (a)                   |
| clover, white (p)                  | jimsonweed (a)                   |
| cocklebur, common (a)              | knapsweed, diffuse (b)           |

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knapweed, Russian (p) ††  
 knapweed, spotted (b)  
 ladythumb (a) ††  
 lettuce, prickly (a)  
 locoweed, Lambert (p)  
 locoweed, white (p)  
 marshelder (a)  
 nightshade, black (a)  
 nightshade, Eastern black (a)  
 nightshade, cutleaf (a)  
 nightshade, hairy (a)  
 oxeye daisy (p)  
 pineappleweed (a)  
 ragweed, common (a)  
 ragweed, giant (a)  
 salsify, meadow (goatsbeard) (b)

sicklepod (a)  
 smartweed, green (a) ††  
 sorrel, red (p)  
 sowthistle, annual (a)  
 sowthistle, perennial (p) ††  
 starthistle, yellow (a)  
 sunflower (a)  
 teasel, common (b)  
 thistle, bull (b)  
 thistle, Canada (p)  
 thistle, musk (b)  
 velch (a)  
 volunteer alfalfa (p) (from seed only)  
 volunteer beans (a)  
 volunteer lentils (a)  
 volunteer peas (a)  
 wormwood, biennial (a,b) †††

† See guidelines for Control of Specific Weeds for additional information on application timing and application rates.

†† 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 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 such as Russian knapweed and perennial sowthistle, Clopyralid will control the top growth and inhibit regrowth during the season of application (season-long control). At higher user rates shown on this label, Clopyralid 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.

††† Not approved for use in California.

### GUIDELINES FOR CONTROL OF SPECIFIC WEEDS†

Weed Species	Stage of Growth	Rate Range to Control †† (pt/acre)
clover	Up to 5 leaf	1/4 - 1/2
cocklebur		
Jerusalem artichoke		
jimsonweed		
marshelder		
other annual and biennial weeds		
ragweeds		
sunflower		
velch		
volunteer soybean		
wild buckwheat	1-3 leaf stage, but before vining	1/2
buffalobur	2 - 4 leaf	2/3 to 1 1/3
nightshade sp.		
smartweeds (suppression)		
Canada thistle	Rosette up to bud stage	Degree of infestation: Light - 1/3 Moderate to heavy - 1/2 to 2/3
sowthistle (suppression)		
knapweeds, spotted/diffuse	Up to bud stage	1/2 - 2/3
knapweed, Russian †††		2/3 to 1 1/3

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

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

††† Provides suppression only.

### CROP USES

**Agricultural Use Requirements for Crops:** For the following crop uses, follow PPE and reentry instructions in the Agricultural Use Requirements section of this label.

#### Asparagus

Clopyralid is recommended for selective postemergence control of specific annual and perennial broadleaf weeds infesting asparagus.

#### Application Timing

Applications may be made before or during the asparagus cutting season, or after harvest is complete, but prior to fern growth. Treat annual weeds before they send up a flower stalk. For best results on perennial weeds such as Canada thistle, apply Clopyralid after the majority of basal leaves have emerged up to bud stage. Following application wait at least 2 weeks before cultivating. **Note:** Postharvest (layby) applications should be made as soon as possible after cutting provided weeds are in proper stage of growth for treatment. Malformed ferns may result from application when spears are longer than 3 inches or with open seed heads.

#### Application Rate

Apply Clopyralid at a rate of 1/2 - 2/3 pint per acre in a total spray volume of 10 to 40 gallons per acre. Use the higher rate for more effective control of perennial weeds. A second application may be made as long as the total amount applied does not exceed 2/3 pint per acre of Clopyralid during the growing season.

#### Tank Mixtures for Asparagus

Clopyralid may be tank mixed with other herbicides registered for use on asparagus to broaden the spectrum of weeds controlled. See Tank Mixing Precautions under Mixing Instructions. Follow all applicable use directions, precautions, restrictions and limitations on the labels for each product used in the tank mixture.

#### Specific Use Precautions:

- **Preharvest Interval:** Do not harvest for a minimum of 48 hours after application.
- When Clopyralid is applied during the cutting season, some crooking (twisting) of asparagus spears may occur. Do not apply during the cutting season if crooking can not be tolerated. Clear-cutting of spears just before applying Clopyralid may reduce the occurrence of crooking.

#### Barley, Oats and Wheat

#### Application Rate

Apply 1/4 to 1/3 pint per acre of Clopyralid when crop is from the 3 leaf stage up to early boot stage of growth. For control of perennial weeds such as Canada thistle, 1/3 pint per acre of Clopyralid should be used. 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

#### Tank Mixtures for Barley, Oats and Wheat

Clopyralid may be applied in tank mix combination with labeled rates of other products registered for postemergence application in wheat, barley, and oats. See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

#### Canola (Rapeseed) and Crambe

(Not registered for use in California)

#### 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 Guidelines for Control of Specific Weeds for additional information. Apply Clopyralid 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 and Application Rates	
Target Broadleaf Weeds	Application Rate (pint/acre)
thistle, Canada	1/3 for top growth suppression
thistle, Canada sowthistle, perennial	1/2 for season long control
buckwheat, wild chamomile, false chamomile, mayweed dandelion dock, curly nightshade species smartweed, green sowthistle, annual sunflower wormwood, biennial	1/4 - 1/2

#### Specific Use Precautions:

- **Preharvest Interval:** Do not apply within 50 days of harvest.
- Make 1 broadcast application per crop per year.

#### Tank Mixtures for Canola (Rapeseed) and Crambe

Clopyralid may be tank mixed with other herbicides labeled for use on canola and crambe. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

#### Christmas Tree Plantations

#### Application Timing

Clopyralid is recommended 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. (Some needle curling has been observed on first year transplants.) Apply to actively growing weeds. For control of annual weeds, apply Clopyralid from weed emergence up to the 5-leaf stage of growth (for wild buckwheat, application at 3 to 5 leaf stage of growth, 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 up to bud stage. Later application may result in less consistent control.

#### Application Rate

Apply 1/4 to 1/2 pint per acre of Clopyralid for control of annual weeds. Apply 1/2 to 2/3 pint per acre of Clopyralid 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 appropriate rate and volume per treated acre.

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**Rate of Scorpion III Applied to  
Current Corn Crop (lb/acre)**  
0.25

**Maximum Application Rate  
for Clopyralid (fl oz/acre)**  
8.1

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Clopyralid 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 instructions for Spot Treatment and Hand-held Sprayers under Application Directions in the General Information section.

### Specific Use Precautions:

- Re-treat as necessary, but do not exceed 2/3 pint per acre of Clopyralid per annual growing season.
- **Blue Spruce:** Do not exceed 1/2 pint per acre per annual growing season.
- Tree injury may occur with the addition of a surfactant or crop oil with Clopyralid. Do not use unless previous experience shows injury is tolerable.
- Do not apply with an air blast sprayer.

### Corn (Field, Pop and Sweet)

Clopyralid 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 Clopyralid at suggested timing and rates for field, pop and sweet corn as indicated below.

### General Weed Control

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

### Control of Canada Thistle

For effective control of Canada thistle, apply 1/3 to 2/3 pint per acre of Clopyralid 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 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.

### Field Corn

#### Application Timing

Apply Clopyralid 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. The use of flat fan nozzles provides the best coverage and distribution of chemical on the plant foliage. Use spray pressures (at the boom) recommended by nozzle manufacturers to obtain desired spray volume. Use higher spray volumes when weed foliage is dense.

#### Specific Use Restrictions for Field Corn

- Re-treat as necessary, but do not apply more than 2/3 pint per acre of Clopyralid 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.

#### Tank Mixtures or Sequential Applications for Field Corn

See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. If Clopyralid is applied sequentially or in combination with Hornet® or Scorpion® III herbicides to the current corn crop, the maximum application rate for Clopyralid is indicated in the following tables:

Rate of Hornet Applied to Current Corn Crop (oz/acre)	Maximum Application Rate for Clopyralid (fl oz/acre)
1.6	8.1
2.4	6.8
3.2	5.4
4.0	4.0

**Note:** Maximum use rate for clopyralid is 0.25 lb a.e. per acre. One ounce of Hornet contains 0.039 lb of clopyralid. One-fourth pound of Scorpion III contains 0.0625 lb of clopyralid. One ounce of Clopyralid contains 0.023 lb of clopyralid.

### Corn Inbred Lines or Breeding Stock

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

### Hand-Held Sprayers

Clopyralid 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 instructions for Spot Treatment and Hand-Held Sprayers under Application Directions in the General Information section. Applications should be made on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff.

### Popcorn and Sweet Corn

(Not registered for use in California)

#### Application Timing

**Popcorn:** Apply Clopyralid any time after popcorn emergence through 24-inch tall popcorn.

**Sweetcorn:** Apply Clopyralid any time after sweet corn emergence through 18-inch tall sweet corn.

#### Application Rate

Apply 1/3 to 2/3 pint per acre of Clopyralid 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 Clopyralid 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 Jerusalem artichoke, common cocklebur, jimsonweed, ragweed (common and giant), annual sowthistle, and sunflower, apply Clopyralid from weed emergence up to the 5 leaf stage of growth. Use a higher rate listed for heavy infestations or when residual control is desired. Consult the table entitled Guidelines for Control of Specific Weeds for additional information.

#### Specific Use Precautions for Popcorn and Sweet Corn

- **Preharvest Interval:** Do not apply within 30 days of harvest for ears and forage and 60 days of harvest for stover.
- Make 1 to 2 broadcast applications per crop year, not to exceed a total of 2/3 pint per acre.
- **Re-treatment interval:** 21 days.
- Do not apply to popcorn greater than 24 inches tall or sweet corn greater than 18 inches tall.

#### Tank Mixtures for Popcorn and Sweet Corn

Clopyralid may be tank mixed with other herbicides labeled for use on popcorn and sweet corn. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Cottonwood/Poplar and Eucalyptus Tree Plantations

Clopyralid may be used for selective postemergence control of labeled broadleaf weeds in new and established plantings of cottonwood/poplar and eucalyptus tree plantations. 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 per acre total spray volume using ground equipment only. Multiple applications of Clopyralid 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 Guidelines for Control of Specific Weeds for recommended rates and timing for specific susceptible annual, biennial, and perennial weeds.

### Hand-Held Sprayers

Spot applications using hand held equipment are also allowed, but contact with tree foliage should be avoided or limited to lower branches. Apply to weeds on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff. Prepare a spray solution by adding 1/4 fl oz Clopyralid 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 Precautions:

- Do not tank mix Clopyralid with other herbicides labeled for this use unless spray avoids all contact with tree foliage.
- Clopyralid will not control certain broadleaf weeds, including mustards, henbit, chick weed, Kochia, lambsquarters, pigweed, Russian thistle and bindweed.

### Fallow Cropland

#### Application Timing

Clopyralid 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 the bud stage. Later applications may result in less consistent control. Extreme growing conditions (such as drought or near freezing temperatures) prior to, at, or following application may reduce weed control.



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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 per acre of Clopyralid. Use the higher rate on perennial weeds or when the condition of weeds at treatment may prevent optimum control.

### Tank Mixtures for Fallow Cropland

To improve control of certain broadleaf weeds, Clopyralid may be applied with 0.5 to 2.0 lb acid equivalent (a.e.) per acre of 2,4-D. See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Garden Beet

#### (Not registered for use in California)

Clopyralid is recommended for postemergence control of wild buckwheat, sweet clover, prickly lettuce, common ragweed, nightshade (black, cutleaf, Eastern black and hairy), Galinsoga, and sowthistle, 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 Clopyralid to wild buckwheat at the 1 to 3 leaf stage of growth, before vining begins. Apply Clopyralid to common ragweed and sweet clover from weed emergence up to the 5 leaf stage of growth. Apply Clopyralid to all species of nightshade at the 2 to 4 leaf stage of growth. Apply Clopyralid 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 per acre of Clopyralid with ground equipment in 10 gallons or more total spray volume per acre. Use a higher rate listed for heavy infestations or when greater residual control is desired.

### Specific Use Precautions:

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

### Tank Mixtures for Garden Beet

Clopyralid may be tank mixed with other herbicides labeled for use on garden beet. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Grasses Grown For Seed

### 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. Post-harvest 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 per acre of Clopyralid for control of annual weeds and Canada thistle. Re-treat as necessary, but do not exceed 2/3 pint per acre of Clopyralid per season.

### Tank Mixtures for Grasses Grown for Seed

Clopyralid 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. See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels. 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 Clopyralid with 2,4-D, MCPA, or dicamba unless the risk to crop injury is acceptable.

### Mint (Spearmint and Peppermint)

Clopyralid may be used for selective postemergence control of specific annual and perennial broadleaf weeds infesting mint.

### Application Timing

Treat annual weeds when they are small and actively growing before they send up a flower stalk. For Canada thistle, apply Clopyralid 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 per acre total spray volume 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.

### Broadcast Application Rates, Timing and Weeds Controlled:

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

### Specific Use Precautions:

- **Preharvest Interval:** Do not apply within 45 days of harvest.
- Do not apply more than 1 pint per acre per growing season.
- Treated mint may be used for distillation (oil extraction) only.
- Do not feed spent mint hay slugs to livestock.
- Mint 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 related to a susceptible crop. (See Residues in Plants or Manure section.)
- Discoloration or malformation of mint leaves may occur following treatment. This effect is generally temporary and does not reduce oil yields.
- Clopyralid will not control many broadleaf weeds such as mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian Thistle and field bindweed.

### Spinach

#### (Not registered for use in California)

Clopyralid is recommended for postemergence control of clover, prickly lettuce, ragweed, Galinsoga, common cocklebur, common groundsel, jimsonweed, and pineappleweed, and postemergence suppression of annual sowthistle and Canada thistle, infesting spinach.

### Application Timing

Apply to spinach in the 2 to 5 leaf stage of crop growth. Apply Clopyralid to clover, common cocklebur, jimsonweed, and ragweed from weed emergence up to the 5 leaf stage of growth. For suppression of annual sowthistle and Canada thistle, apply Clopyralid from rosette up to bud stage.

### Application Rate

Apply 1/6 to 1/3 pint per acre of Clopyralid 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 listed for heavy infestations or when greater residual control is desired.

### Specific Use Precautions:

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

### Tank Mixtures for Spinach

Clopyralid may be tank mixed with other herbicides labeled for use on spinach. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Stone Fruits

Including: Apricot, Chickasaw Plum, Damson Plum, Fresh Prune, Japanese Plum, Nectarine, Peach, Plum, Plumcot, Sweet Cherry, Tart Cherry  
(Not registered for use in California)

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

### Application Timing

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

### Application Rate

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

### Specific Use Precautions:

- **Preharvest Interval:** Do not apply within 30 days of harvest.
- Make 1 to 2 broadcast applications per crop per year, not to exceed a total of 2/3 pint per acre.

### Tank Mixtures for Stone Fruits

Clopyralid may be tank mixed with other herbicides labeled for use on stone fruits. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### Sugarbeet

Clopyralid is recommended for the control of various annual and perennial broadleaf weeds infesting sugarbeet.

### Application Rate

Apply 1/4 to 2/3 pint per acre of Clopyralid with ground equipment as a broadcast foliar spray or band treatment. See instructions for band application under Application directions in the General Information section. Apply in 10 gallons or more total spray volume per acre when the sugarbeets are in the cotyledon to 8-leaf stage of growth and the weeds are young and actively growing.

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For annual weed control apply 1/4 to 1/2 pint per acre of Clopyralid from weed emergence up to the 5-leaf stage of growth. Application to wild buckwheat should be made 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 per acre of Clopyralid 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.

#### Specific Use Precautions:

- **Preharvest Interval:** Do not apply within 45 days before harvest of beet roots and tops.
- Re-treat as necessary but do not exceed 2/3 pint per acre of Clopyralid per season.

#### Tank Mixtures for Sugarbeet

To control additional broadleaf weeds and provide consistent control of difficult to control weeds such as wild buckwheat, Clopyralid may be applied in combination with labeled rates of Betamix, Betanex, UpBeet, or other products registered for postemergence application in sugar beets. For best results, tank mix 1/4 pint per acre of Clopyralid with Betamix or Betanex followed 1 to 2 weeks later by a second application of 1/4 to 1/3 pint per acre of Clopyralid tank mixed with Betamix or Betanex. Clopyralid may also be tank mixed with grass herbicides such as Poast. Crop oil or Dash surfactant may be added to the tank mixture to optimize grass weed control. See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

#### Turnip

#### (Not registered for use in California)

Clopyralid is recommended for postemergence control of wild buckwheat, sweet clover, prickly lettuce, common ragweed, and Galinsoga, and postemergence suppression of sowthistle, infesting turnip harvested for roots and tops.

#### Application Timing

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

#### Application Rate

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

#### Specific Use Precautions:

- **Preharvest Interval:** Do not apply within 30 days of harvest of turnip roots or within 15 days of turnip tops.
- Make 1 broadcast application per crop per year.

#### Tank Mixtures for Turnip

Clopyralid may be tank mixed with other herbicides labeled for use on turnip roots and tops. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

### RANGELAND, PASTURE, CRP AND NON-CROP USES

**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 General Information section.)

#### Rangeland and Permanent Grass Pastures

Apply 1/2 to 1 1/3 pint per acre of Clopyralid when weeds are young and actively growing. Established grasses are tolerant to Clopyralid, 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.

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

There are no restrictions on grazing or hay harvest following application of Clopyralid at labeled rates.

**Conservation Reserve Program (CRP) for Seeding to Permanent Grasses Only**  
Do not use Clopyralid 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

Clopyralid should be applied 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 Clopyralid. Application prior to flowering stage is recommended (still in the bud stage).

#### Application Rate

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

#### Tank Mixtures for CRP for Seeding to Permanent Grasses Only

Clopyralid 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. (See Tank Mixing Precautions under Mixing Instructions.)

#### Non-Cropland

Clopyralid may be applied in non-cropland areas such as fencerows, around farm buildings and equipment pathways. **Note:** Clopyralid 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 pint per acre of Clopyralid. 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 pint per acre of Clopyralid.

#### Tank Mixtures for Non-Cropland

To improve spectrum of weed control or to increase control of more mature weeds, Clopyralid may be tank mixed with 0.5 to 2.0 lb a.e. per acre of 2,4-D amine or low volatile ester herbicide or other herbicides registered for this use site. See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed recommended application rates and use only in accordance with the most restrictive precautions and limitations on the respective product labels.

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