

Specimen Label



Dow AgroSciences



HERBICIDE

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For selective control of broadleaf weeds in wheat and barley not underseeded with a legume, fallow cropland, grasses grown for seed, rangeland and permanent grass pastures, conservation reserve program (CRP) acres and non-cropland

Active Ingredients:

clopyralid MEA salt: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt.....	5.1%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt.....	39.0%
Other Ingredients.....	55.9%
Total	100.0%

Acid Equivalents:

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 3.9% - 0.38 lb/gal
2,4-dichlorophenoxyacetic acid - 20.9% - 2 lb/gal

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-48

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful If Absorbed Through Skin Or Inhaled • Harmful If Swallowed

Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to the product include any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- Protective eyewear
- Chemical resistant apron when applying postharvest dips or sprays to citrus, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements

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.

Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)].

User Safety Recommendations

Users should:

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

First Aid

If in eyes: 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.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

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

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

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.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

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

Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

Agricultural Use Requirements (Cont.)

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 or allow people (or pets) to enter treated areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food or feed by storage and disposal.
Pesticide Storage: Store above 40°F or warm and agitate before use.
Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

Nonrefillable containers 5 gallons or less:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
 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.

Refillable containers larger than 5 gallons:

Container Reuse: 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.

Nonrefillable containers 5 gallons or larger:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
 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.

fallow cropland (including summer fallow, post-harvest, and set-aside acres) rangeland and permanent grass pastures, land in the Conservation Reserve Program (CRP) and non-cropland.

Precautions and Restrictions

- Use directions in Dow AgroSciences supplemental labeling may supersede directions or limitations in this labeling.
- Do not exceed a cumulative amount of 0.25 lb active ingredient (ai) of clopyralid per acre per single crop year.
- 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.
- Many forbs (desirable broadleaf forage plants) are susceptible to Curtail. 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 on newly seeded areas until grass is well established as indicated by vigorous growth and development of tillers and secondary roots.
- Do not use on bentgrass.
- Apply only once per crop cycle, except for grasses grown for seed (see specific use directions). An application to fallow cropland preceding or following an application to small grains (wheat or barley) is allowed.
- 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 Curtail in treated plant tissues, including the treated crop or weeds, which have not decayed may affect succeeding susceptible crops.

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

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

Rotation Crops (1)	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, field corn, grasses, oats, wheat	30 days	30 days
canola (rapeseed), flax, sugar beets	5 months	5 months
alfalfa, asparagus, cole crops, dry beans, grain sorghum, mint, onions, popcorn, safflower, soybeans, strawberries, sunflowers, sweet corn	10.5 months	18 months (2)
lentils, peas, potatoes (including potatoes grown for seed), and broadleaf crops grown for seed (excluding Brassica species)	18 months (2, 3)	18 months (2, 3)

General Information

Curtail® herbicide is recommended for selective, postemergence control of broadleaf weeds in wheat and barley not underseeded with a legume,

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. **Note:** For these crops, a minimum 10.5 month rotation interval must be observed to avoid illegal residues in the harvested crop.
3. The potential for injury may be reduced by burning, removal, or incorporation of treated crop residues followed by a minimum of 2 supplemental fall irrigations.

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

Rotation Crop	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, field corn, grasses, oats, wheat	30 days	30 days
canola (rapeseed), flax, sugar beets	5 months	5 months
asparagus, <i>Brassica</i> species grown for seed, cole crops, grain sorghum, mint, onions, popcorn, strawberries, sweet corn	12 months	12 months
alfalfa, dry beans, soybeans, sunflowers	12 months	18 months (2)
lentils, peas, potatoes (including potatoes grown for seed), safflower, 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 12 months following application.
2. An 18-month crop rotation is recommended due to the potential for crop injury. **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 below.

†**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, Curtail 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.

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 that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or more fine spray, apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 15 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, fruit trees, 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 may 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 of 2,4-D 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.

Aerial Application

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. This requirement does not apply to forestry or rights-of-way applications.

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.

Ground Boom Application

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

Mixing Instructions

1. Add 3/4 of the required spray volume to the spray tank and start agitation.
2. Add the required amount of Curtail.
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.
- 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 Curtail 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 Curtail 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.

Use of Surfactants

Addition of wetting and/or penetration agents is not usually necessary when using Curtail; however, if a surfactant will be added to the spray solution, use a non-ionic surfactant suitable for use in growing crops of at least 80% active ingredient and **do not exceed** 4 pints per 100 gallons of spray solution (0.5% v/v). Use of a surfactant in the spray mixture may increase weed control effectiveness but may reduce crop safety, particularly under conditions of plant stress.

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.

Use with Sprayable Liquid Fertilizer Solutions

Curtail is compatible with most non-pressurized liquid fertilizer solutions; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when the water source changes, or when tank mixture ingredients or concentrations are changed. A compatibility test is performed by mixing the spray components (in the desired order and proportions) into a clear glass jar before mixing in the spray tank. Use of a compatibility aid such as Unite or Compex may help obtain and maintain a uniform spray solution during mixing and application. Agitation in the spray tank must be vigorous to compare with jar test agitation. For best results, liquid fertilizer should not exceed 50% of the total spray volume. Premix Curtail with water and add to the liquid fertilizer/water mixture while agitating contents of the spray tank. Apply the spray the same day it is prepared while maintaining continuous agitation. **Note:** Foliar-applied liquid fertilizers can cause yellowing or leaf burn of crop foliage.

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 Curtail (fl oz or mL) corresponding to the desired broadcast rate in 1 gallon or more of spray. To calculate the amount of Curtail 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 Curtail per Gallon of Spray to Equal Specified Broadcast Rate				
1 pt/acre	2 pt/acre	2 2/3 pt/acre	3 pt/acre	4 pt/acre
3/8 fl oz (11 mL)	3/4 fl oz (22 mL)	1 fl oz (30 mL)	1 1/8 fl oz (33 mL)	1 1/2 fl oz (44 mL)

† 1 fl oz = 29.6 (30) mL

Broadleaf Weeds Controlled

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

alfalfa (from seed only) (p)	mustard, tumble (Jim Hill) (a)
artichoke, Jerusalem (p)	mustard, wild (a)
buckwheat, wild (a)	nightshade, black (a)
buffalobur (a) [†]	nightshade, cutleaf (a)
burdock, common (b)	nightshade, eastern black (a)
chamomile, false (scentless) (a)	nightshade, hairy (a)
chamomile, mayweed (dogfennel) (a)	pennycress, field (fanweed) (a)
clover, black medic (a)	pigweed, redroot (a)
clover, hop (a)	pineappleweed (a)
clover, sweet (b)	plantain (p)
clover, red (p)	radish, wild (a)
clover, white (p)	ragweed, common (a)
cocklebur, common (a)	ragweed, giant (a)
cofeeweed (a)	salsify, meadow (goatsbeard) (b)
cornflower	shepherds-purse (a)
(bachelor button) (a)	sicklepod (a)
dandelion (p)	smartweed, Pennsylvania (a)
dock, curly (p)	sorrel, red (p)
flixweed (a) [†]	sowthistle, annual (a)
groundsel, common (b)	sowthistle, perennial (p) [†]
hawksbeard, narrowleaf (a)	starthistle, yellow (a)
hawkweed, orange (p)	sunflower, common (a)
hawkweed, yellow (p)	teasel, common (b)
horseweed (a)	thistle, bull (b)
jimsonweed (a)	tansymustard, pinnate (a) [†]
knawweed, diffuse (b)	thistle, Canada (p)
knawweed, Russian (p) [†]	thistle, musk (b)
knawweed, spotted (b)	thistle, Russian (1-3 leaf) (a)
kochia (2-4 leaf) (a) [†]	velvetleaf (a)
ladythumb (a)	vetch (a)
lambsquarters, common (a)	volunteer beans (a)
lettuce, prickly (a)	volunteer lentils (a)
locoweed, Lambert (p)	volunteer peas (a)
locoweed, white (p)	wormwood, biennial (a, b)
marshelder (a)	

[†]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**, Curtail will control the initial top growth and inhibit regrowth during the season of application (season-long control). At higher rates shown on this label, Curtail 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.

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.

Barley and Wheat

Application Timing

Apply Curtail in the spring to actively growing wheat or barley once 4 leaves have unfolded on the main stem and tillering has begun up to the jointing stage (first node of main stem detectable). To control or suppress listed weeds, make application after maximum emergence of the target weeds but before they exceed 3 inches in height or diameter (for rosettes). To obtain season-long control of perennial weeds, such as Canada thistle, apply after the majority of the weed's basal leaves have emerged from the soil up to bud stage. A later application when the crop is between the jointing and boot stage of growth may be used to control later-emerging weeds; however, do not apply unless the risk of injury is acceptable. Do not apply after the boot stage. Potential for crop injury is increased if 2,4-D is applied to winter wheat in the fall when it is not fully tillered.

Application Rate

Apply 2 to 2 2/3 pints per acre of Curtail. The higher rate may be used when the condition of the weeds and/or crop at the time of treatment may prevent optimum control. **Note:** Higher rates of Curtail or any application of Curtail following a spring postemergence treatment with 2,4-D or MCPA may increase the risk of crop injury.

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.
- **Preharvest Interval:** 14 days
- **Maximum Application Rate:** Apply no more than 2 2/3 pints of Curtail (0.67 lb ae 2,4-D) per acre per application. Make no more than one postemergent application per crop cycle. If Curtail is tank mixed with additional 2,4-D, apply no more than a cumulative total of 1.25 lb ae 2,4-D per acre per application.
- **Maximum Seasonal Rate:** Apply no more than 1.75 lb ae 2,4-D per acre per crop cycle in either postemergent or preharvest application timings.
- **Preharvest:** Limit to one preharvest application per crop cycle at a maximum of 2 pints (0.5 lb ae 2,4-D) per acre per application.

Tank Mixtures for Wheat and Barley

Curtail 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.

Specific Use Precautions:

- Buctril or Banvel tank mixes with Curtail may be useful in broadening the annual weed control spectrum but may reduce control of perennials, such as Canada thistle.
- Do not tank mix Curtail with 2,4-D or dicamba unless the risk of crop injury is acceptable.

Fallow Cropland

Application Timing

Curtail may be applied either post-harvest or 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 tough 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. Extreme growing conditions (such as drought or near freezing temperatures) prior to, at, or following application may reduce weed control.

For best results, wait 14 to 20 days after application before cultivating or fertilizing with shank-type applicators to allow for thorough translocation. To avoid potential phytotoxicity, allow at least 30 days after application before seeding to wheat, barley or grasses.

Application Rate

Apply 2 to 4 pints of Curtail per acre. Applications of Curtail to fallow cropland made either before or after an application to small grains in a 12-month period are restricted to 2 pints per acre. The lower rate should not be used in fallow cropland unless it is a part of a planned sequential treatment.

Specific Use Restrictions:

- **Preharvest Interval:** Do not cut forage for hay within 7 days of application.
- **Recropping Interval:** Plant only labeled crops within 29 days following application.
- **Maximum Application Rate:** Apply no more than 4 pints of Curtail (1 lb ae 2,4-D) per acre per application. Make no more than one postemergent application of Curtail per fallow cycle.
- **Reapplication Interval:** Do not apply within 30 days of a previous application of 2,4-D.
- **Maximum Seasonal Rate:** Make no more than one application of Curtail per fallow season. Do not apply more than 4 lb ae 2,4-D-containing products per acre per fallow cycle in cumulative applications.

Tank Mixtures for Fallow Cropland

To improve control of certain broadleaf weeds, Curtail at 2 pints per acre may be applied with up to 1.5 lb acid equivalent per acre additional 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.

Grasses Grown for Seed

Application Timing

Apply only to established grasses before the boot stage of growth. Applications in the boot stage and beyond will 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 in the bud stage and 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 2 to 4 pints of Curtail per acre for control of annual weeds and Canada thistle. The potential for crop injury exists due to the 2,4-D component of this product and must be balanced against the benefits of improved weed control. Potential for crop injury increases with higher rates. Re-treat as necessary, but do not exceed 4 pints of Curtail per acre per season.

Specific Use Restrictions:

- **Preharvest Interval:** Do not cut forage for hay within 7 days of application. Do not graze lactating dairy cattle in treated areas for 14 days after application. Remove meat animals from freshly treated areas 7 days before slaughter. Withdrawal is not needed if 2 weeks or more have elapsed since application.
- **Maximum Application Rate:** Apply no more than 4 pints of Curtail (1 lb ae 2,4-D) per acre per application. Make no more than two postemergent applications of Curtail (2 lb ae 2,4-D) per acre per crop cycle.
- **Reapplication Interval:** Do not apply within 21 days of a previous application of 2,4-D.
- **Maximum Seasonal Rate:** Make no more than two applications of Curtail or apply more than 4 lb ae 2,4-D-containing products per acre per crop cycle in cumulative applications.
- Use sufficient spray solution for thorough and uniform coverage, and no less than 2 gallons per acre.

Tank Mixtures for Grasses Grown for Seed

Curtail at 1 3/4 pints per acre may be tank mixed with Banvel or Buctril to improve the control of certain weeds. 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.

Rangeland, Pasture 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 field bioassay instructions).

Rangeland and Permanent Grass Pastures

Specific Use Restrictions:

- **Preharvest Interval:** Do not cut forage for hay within 7 days of application. Do not graze lactating dairy cattle in treated areas for 14 days after application. Remove meat animals from freshly treated areas 7 days before slaughter. Withdrawal is not needed if 2 weeks or more have elapsed since application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- **Maximum Use Rates:**
 - for control of susceptible annual and biennial and perennial broadleaf weeds (such as biennial thistles, spotted and diffuse knapweed, yellow starthistle and Canada thistle) 2 quarts (1 lb ae 2,4-D) per acre
 - moderately susceptible biennial and perennial broadleaf weeds: 3 to 4 quarts (1.5 to 2 lb ae 2,4-D) per acre
 - difficult to control weeds (such as Russian knapweed): 4 quarts (2 lb ae 2,4-D) per acre
- **Reapplication Interval:** Do not apply within 30 days of a previous application of 2,4-D.
- **Maximum Seasonal Rate:** Make no more than one application of Curtail per season. Do not apply more than 4 quarts (2 lb ae 2,4-D) per acre per use season
- Use 2 gallons or more of spray solution per acre

Apply 2 to 4 quarts of Curtail per acre when weeds are actively growing. For weeds such as biennial thistles, spotted and diffuse knapweed, yellow starthistle and Canada thistle, apply 2 quarts per acre on light to moderate infestations under good growing conditions. Use 3 quarts per acre for dense infestations or under poor growing conditions such as drought. For control of Russian knapweed, apply 3 to 4 quarts per acre at the early bud to mid-flowering stage or on fall regrowth.

Conservation Reserve Program (CRP) for Seeding to Permanent Grasses Only

Do not use Curtail if legumes or bentgrass are a desired cover crop 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

Curtail can be applied when perennial grasses are well established as indicated by vigorous growth and development of tillers and secondary roots. For control of weeds such as musk thistle, Canada thistle and knapweed (diffuse, spotted and Russian), apply to actively growing weeds after the majority of the basal leaves have emerged up to bud stage. Later applications may result in less consistent control.

In fields with heavy weed density that are to be planted to CRP grasses, a pre-seeding application may be made. In general, cropland to be planted to CRP in the spring should be treated during the previous fall and cropland to be planted to CRP in the fall should be treated during the previous spring or summer. A pre-seeding treatment with Curtail may cause visible injury and reduced seed production in some newly planted grass stands; however, grass stand establishment should be improved because of reduced weed competition. Wait at least 30 days after treating with Curtail before seeding grasses.

Application Rate

Apply 2 to 4 quarts of Curtail per acre. Do not exceed 2 quarts per acre for pre-seeding treatment.

Specific Use Restrictions:

- **Preharvest Interval:** Do not cut forage for hay within 7 days of application. Do not graze lactating dairy cattle in treated areas for 14 days after application. Remove meat animals from freshly treated areas 7 days before slaughter. Withdrawal is not needed if 2 weeks or more have elapsed since application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- **Maximum Use Rates:**
 - susceptible annual and biennial and perennial broadleaf weeds (such as biennial thistles, spotted and diffuse knapweed, yellow starthistle and Canada thistle): 2 quarts (1 lb ae 2,4-D) per acre
 - moderately susceptible biennial and perennial broadleaf weeds: 3 quarts (1 to 1.5 lb ae 2,4-D) per acre
 - difficult to control weeds (such as Russian knapweed): 3 to 4 quarts (1.5 to 2 lb ae 2,4-D) per acre
- **Reapplication Interval:** Do not apply within 30 days of a previous application of 2,4-D.
- **Maximum Seasonal Rate:** Make no more than one application of Curtail per season. Apply no more than 4 quarts (2 lb ae 2,4-D) per acre per use season
- Use 2 gallons or more of spray solution per acre

Non-Cropland

Postemergence (annual and perennial weeds):

- Make no more than one application of Curtail per season. Do not make more than two applications of 2,4-D-containing products per year.
- Do not apply more than 2 lb ae 2,4-D per acre per application.
- **Maximum Seasonal Rate:** Make no more than one application of Curtail per season. Apply no more than 4 quarts of Curtail (2 lb ae 2,4-D) per acre per use season
- **Reapplication Interval:** When multiple applications of 2,4-D are utilized, do not make a repeat application within 30 days of a previous application of 2,4-D.
- Use 2 gallons or more of spray solution per acre.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Curtail may be applied in non-cropland areas such as fencerows, around farm buildings and equipment pathways. Apply 2 to 4 quarts of Curtail per acre when weeds are actively growing. Where Canada thistle or knapweed (spotted or diffuse only) is the primary pest, best results are obtained by applying Curtail when the majority of basal leaves have

emerged up to bud stage. Later applications may result in less consistent control. **Note:** Curtail is not registered for use in landscaping or on turfgrass or lawns.

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Revisions:

- 1 Update Trademark/branding