## Specimen Label

CLOPYRALID GROUP 4 HERBICIDE
MCPA GROUP 4 HERBICIDE





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For selective control of broadleaf weeds in wheat, barley, intermediate wheatgrass, oats and flax not underseeded with a legume, fallow cropland, grasses grown for seed, rangeland, permanent grass pastures, and Conservation Reserve Program (CRP) acres.

Active Ingredient(s):	% by Weight
clopyralid: 3,6-dichloro-2-	
pyridinecarboxylic acid	5.0%
MCPA-EHE: 2-methyl-4-	
chlorophenoxyacetic acid,	
2-ethylhexyl ester	43.4%
Other Ingredients	51.6%
Total	100.0%
Contains naturals un distillates	

## Contains petroleum distillates

**HERBICIDE** 

Acid Equivalents:

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid - 5.0% (0.42 lb/gal) MCPA: 2-methyl-4-chlorophenoxyacetic acid - 27.8% (2.35 lb/gal)

## **Precautionary Statements**

Hazards to Humans and Domestic Animals EPA Reg. No. 62719-86

# Keep Out of Reach of Children CAUTION PRECAUCION

Causes Moderate Eye Irritation • Harmful If Swallowed, Inhaled, Or Absorbed Through Skin

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

#### Personal Protective Equipment (PPE)

Mixers, loaders, applicators, flaggers and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of Barrier Laminate or Butyl Rubber ≥ 14 mils
- · Shoes plus socks

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**

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-e).

For aerial applications to high-acreage field crops:

 Handlers must use closed mixing loading systems during mixing and loading liquids for aerial application to barley, flax, oats, pasture and rangeland grass and wheat.

#### **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
- 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 swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything to an unconscious person.

**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 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.

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.

**Note to Physician:** Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

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

#### **Environmental Hazards**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

## **GROUNDWATER ADVISORY**

Clopyralid and MCPA are known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

## **SURFACE WATER ADVISORY**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of Clopyralid and MCPA from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### **Physical or Chemical Hazards**

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

## Directions for Use

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

Read all Directions for Use carefully before applying.

Use Restrictions in the State of New York: Sale and use of this product in Suffolk and Nassau counties in the state of New York is prohibited. Use of this product in the state of New York is limited to postemergence application with a maximum use of 18.9 fl oz (0.062 lb of clopyralid) per acre per year providing that no other product containing clopyralid has been applied pre-plant or post-plant.

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.

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 Barrier Laminate or Butyl Rubber ≥ 14 mils
- 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 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: When applied to rangeland, permanent pastures, and non-cropland areas, keep unprotected persons out of treated areas until sprays have dried.

## Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal. **Pesticide Storage:** Store above 10°F or warm and agitate before use. **Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

## Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## Refillable containers larger than 5 gallons:

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

## Storage and Disposal (Cont.)

Nonrefillable containers 5 gallons or larger:

**Container Handling:** 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. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill. or by incineration, or by other procedures allowed by state and local authorities.

#### **Product Information**

Curtail® M herbicide is a selective herbicide used for control of broadleaf weeds in wheat, barley, intermediate wheatgrass, oats and flax not underseeded with a legume, fallow cropland (including summer fallow, post-harvest, and set-aside acres), grasses grown for seed, rangeland, permanent grass pastures, and Conservation Reserve Program (CRP) acres.

#### **Precautions**

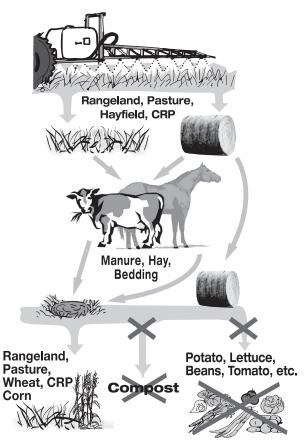
 Many forbs (desirable broadleaf forage plants) are susceptible to Curtail M. Do not spray pastures containing desirable forbs, especially legumes, unless injury can be tolerated. However, the stand and growth of established perennial grasses is usually improved after spraying, especially when rainfall is adequate and grazing is deferred.

#### Restrictions

- Do not exceed a cumulative amount of 0.25 lb active ingredient (a.i.) of clopyralid per acre per single crop year except in the state of New York (see New York restrictions above).
- Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.
- Do not use in greenhouses.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not 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).
- Grazing Restriction for Rangeland and Grass Pastures: Do not forage or graze meat animals on treated areas within 7 days of slaughter. Do not forage or graze dairy animals on treated areas within 7 days after treatment.
- 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.
- Handlers must use closed mixing loading systems during mixing and loading liquids for aerial application to barley, flax, oats, pasture and rangeland grass, rye, triticale, wheat, and grass grown for seed.
- This product is persistent and may be present in treated plant materials
  for months to years after application. Do not sell or transport treated
  plant materials or manure from animals that have grazed on treated
  plant materials off-site for compost distribution or for use as animal
  bedding/feed for 18 months after application.

- Manure from animals that have grazed or eaten forage or hay harvested from treated areas within the previous three days may only be applied to the fields where the following crops will be grown: pasture grasses, grass grown for seed, wheat and corn.
- Animals that have been fed clopyralid-treated forage must be fed forage free of clopyralid for at least 3 days before movement to an area where manure may be collected or sensitive crops are grown.
- The applicator must document that they have notified property owners/ operators, or customers, in writing, of the compost and animal bedding/ feed prohibitions before application of the product occurs. Applicators must keep the records of notification for two years. This record must include date of application, the name of the applicator, the EPA registration number of the product applied, the area(s) treated, and a copy of the written notification provided to the property owner/operator. Notification may be made via email, via mail, via paper handout, or by any other written communication method. Records must be made available to State Pesticide Regulatory Official(s), and to EPA upon request. If this information is already being retained, duplicate records are not needed.
- Applications by property owners/operators on their own property are exempt from this notification and record keeping requirement.
- Applications to public land are exempt from this notification requirement.

## **Forage and Manure Management**



Warning: Do not move treated plant materials or manure from animals who have grazed on treated plant materials to sites where manure may be collected or sensitive crops are grown.

For more information on how to manage clopyralid treated materials and to prevent clopyralid from contaminating compost please visit https://www.epa.gov/pesticide-reevaluation/registration-review-pyridine-and-pyrimidine-herbicides.

## **Crop Rotation Intervals**

Residues of Curtail M 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	Rotation Interval† (Soils less than 2% organic matter AND rainfall less than 15 inches during 12 months
	months following application)	following application)
barley, flax, grasses, oats, wheat, intermediate wheatgrass	30 days	30 days
field corn	60 days	60 days
canola (rapeseed), 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)

- 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.
- 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.
- 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 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, flax, grasses, oats, wheat, intermediate wheatgrass	30 days	30 days
field corn	60 days	60 days
canola (rapeseed), 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)

 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.

- 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.
- 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 listed crop rotation intervals should result in adequate safety to rotational crops. However, Curtail M 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 product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, do not apply Curtail M directly to, or allow spray drift to come in contact with, vegetables, flowers, grapes, tomatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops and ornamental plants or soil where these sensitive crops will be planted the same season.

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

#### MANDATORY SPRAY DRIFT MANAGEMENT

## **Aerial Applications:**

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select a nozzle and pressure combination that delivers a medium or coarser droplet size (ASABE S572 and S641)
- If the windspeed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed-wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### **Ground Boom Applications:**

- Apply with the release height no more than 3 feet above the ground or crop canopy unless making a pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- Applicators are required to select a nozzle and pressure combination that delivers a medium or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### MANDATORY SPRAY DRIFT MANAGEMENT (Cont.)

## **Boomless Ground Applications:**

- Applicators are required to select a nozzle and pressure combination that delivers a medium or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## **Controlling Droplet Size - Aircraft**

 Adjust Nozzles – Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **Boomless Ground Applications:**

 Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## **Handheld Technology Applications:**

Take precautions to minimize spray drift.

#### WEED RESISTANCE MANAGEMENT

Curtail M contains the active ingredients clopyralid and MCPA, growth regulator (Group 4) herbicides, based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small.
- Apply full rates of Curtail M for the most difficult to control weed in the field at the specified time to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control
  of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective modes of action for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 4 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two sequential applications of Curtail M and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

#### **Sprayer Clean-Out**

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

- 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.
- 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 to 20 minutes). Let the solution stand for several hours, preferably overnight.
- 3. Flush the solution out of the spray tank through the boom.
- Rinse the system twice with clean water, recirculating and draining each time.
- 5. Remove nozzles and screens and clean separately.

## **Mixing Instructions**

- Add 3/4 of the required spray volume to the spray tank and start agitation.
- Add the required amount of Curtail M.
- Add any surfactants, adjuvants or drift control agents according to manufacturer's label. Corteva Agriscience recommends the use of an appropriate Chemical Producers and Distributors Association (CPDA) certified adjuvant.

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. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Tank Mixing Precautions:**

 Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.

#### **Tank Mixing Restrictions**

- Do not exceed labeled 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 Curtail M 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, gels, 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 M are rainfast within 6 hours after application.

## **Application Rates**

Generally, application rates at the lower end of the labeled 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 M; 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  $\bf do$  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 M 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 M 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 M (fl oz or ml) corresponding to the desired broadcast rate in 1 or more gallons of spray. To calculate the amount of Curtail M 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 M per Gallon of Spray to Equal Specified Broadcast Rate							
1/3 pt/acre	1/2 pt/acre	3/4 pt/acre	1 pt/acre	2 pt/acre	3 pt/acre	4 pt/acre	
1/8 fl oz (4 ml)	1/5 fl oz (6 ml)	1/4 fl oz (8 ml)	3/8 fl oz (11 ml)	3/4 fl oz (22 ml)	1 1/8 fl oz (33 ml)	1 1/2 fl oz (44 ml)	

 $<sup>†1 \</sup>text{ fl oz} = 29.6 (30) \text{ ml}$ 

Note: For a rate such as 1 3/4 pint per acre, add together the values for 3/4 pint per acre and 1 pint per acre.

#### **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, wild (a) artichoke, Jerusalem (p) nightshade, black (a) buckwheat, wild (a) nightshade, cutleaf (a) buffalobur (a)1 nightshade, eastern black (a) nightshade, hairy (a) pennycress, field burdock, common (b) chamomile, false (scentless) (a) (fanweed) (a) chamomile, mayweed pigweed, redroot (a) (dogfennel) (a) pineappleweed (a) clover, black medic (a) plantain (p) radish, wild (a) clover, hop (a) clover, sweet (b) ragweed, common (a) clover, red (p) ragweed, giant (a) clover, white (p) salsify, meadow (goatsbeard) (b) cocklebur, common (a) coffeeweed (a) shepherdspurse (a) cornflower sicklepod (a) smartweed, Pennsylvania (a) (bachelor button) (a) dandelion (p) sorrel, red (p) sowthistle, annual (a) dock, curly (p) flixweed (a)1 sowthistle, perennial (p)1 groundsel, common (b) starthistle, yellow (a) hawksbeard, narrowleaf (a) sunflower, common (a) hawkweed, orange (p) teasel, common (b) thistle, bull (b) hawkweed, yellow (p) tansymustard, pinnate (a)1 horseweed (a) jimsonweed (a) thistle, Canada (p) knapweed, diffuse (b) knapweed, Russian (p)<sup>1</sup> thistle, musk (b) thistle, Russian (1-3-leaf) (a)<sup>1</sup> knapweed, spotted (b) velvetleaf (a) kochia (2-4 leaf) (a)1 vetch (a) ladysthumb (a) volunteer beans (a) lambsquarters, common (a) volunteer lentils (a) lettuce, prickly (a) volunteer peas (a) mustard, tumble (Jim Hill) (a) wormwood, biennial (a)

<sup>1</sup>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 M 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 M 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.

#### Uses

## Barley, Intermediate Wheatgrass, Oats and Wheat

**Application Timing** 

Apply Curtail M in the spring to actively growing wheat, barley, intermediate wheatgrass, or oats once 3 leaves have unfolded on the main stem 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 stages of growth may be used to treat later-emerging weeds; however, do not apply unless the risk of injury is acceptable. Do not apply after the boot stage.

#### **Application Rate**

Apply 1 3/4 to 2 1/3 pints per acre of Curtail M. 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 M or any application of Curtail M following a spring postemergence treatment with 2,4-D or MCPA may increase the risk of crop injury.

Curtail M may be applied in tank mix combination with labeled rates of other products registered for postemergence application in wheat, barley, intermediate wheatgrass and oats. See Tank Mixing Precautions under Mixing Instructions

#### **Specific Use Precautions:**

- Banvel (EPA Reg. No. 66330-276; Al: dimethylamine salt of dicamba) tank mixes with Curtail M may be useful in broadening the annual weed control spectrum but may reduce control of perennials, such as Canada
- Do not tank mix Curtail M with 2,4-D or dicamba unless the risk of crop injury is acceptable.

#### Specific Use Restrictions:

- Do not apply more than 2 1/3 pint (0.122 lb ae clopyralid plus 0.684 lb ae MCPA) per acre per year or make more than 1 application per crop season.
- Do not apply more than 0.75 lb ae/acre of MCPA per year.
- Preharvest Interval: Do not apply within 72 days of harvest.
- Do not allow dairy animals or meat animals being finished for slaughter to forage or graze treated areas within 7 days after application.
- Do not harvest hay from treated grain fields.

#### Flax

## **Application Timing**

Apply Curtain M when flax is 2 to 6 inches tall and target weeds are actively growing. To control or suppress weeds listed on the label, make application after maximum emergence of the target weeds but before they exceed 3 inches in height or diameter (for rosettes). To obtain seasonlong control of perennial weeds such as Canada thistle, apply after the majority of the weed's basal leaves have emerged from the soil (plants 4 to 6 inches in height) up to bud stage. Do not apply after flax has begun bolting as crop injury may occur if applied during the bloom period.

## **Application Rate**

Apply 0.85 pint per acre of Curtail M per year.

## **Tank Mixtures**

Curtail M may be used in combination with other herbicides that are labeled for flax. Refer to the label of the tank mix partner for lists of other weeds controlled, rates of application and use precautions.

#### **Specific Use Restrictions:**

- Do not apply more than 0.85 pint (0.045 lb ae clopyralid plus 0.25 lb ae MCPA) per acre per year or make more than 1 application per crop season.
- Do not apply more than 0.25 lb ae/acre of MCPA per year from any source.
- Preharvest Interval: Do not apply within 72 days of harvest.
- Do not allow livestock, dairy animals or meat animals being finished for slaughter to forage or graze treated areas within 7 days after treatment.

## **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 1 3/4 to 3 1/2 pints per acre of Curtail M per year for control of annual weeds and Canada thistle. The potential for crop injury exists due to the MCPA component of this product and must be balanced against the benefits of improved weed control. Potential for crop injury increases with higher rates. If necessary, two sequential applications of Curtail M at the 1 3/4 pints per acre rate can be made, separated by a minimum interval of 21 days.

#### **Tank Mixtures for Grasses Grown for Seed**

Curtail M at 1 3/4 pints per acre may be tank mixed with Banvel or Buctril (EPA Reg. No.: 264-437/AI: Octanoic acid ester of bromoxynil) to improve the control of certain weeds. See Tank Mixing Precautions under Mixing Instructions.

#### **Specific Use Restrictions:**

- Do not apply more than 3 1/2 pints (0.184 lb ae clopyralid plus 1.03 lb ae MCPA) of Curtail M per acre per year. Do not make more than 2 applications per year with a minimum retreatment interval of 21 days.
- Do not apply more than 1.5 lb ae/acre of MCPA per year from any source.
- Do not allow livestock to graze treated areas within 7 days of

## **Rangeland and Permanent Grass Pastures**

Apply 4 to 5 pints per acre of Curtail M when weeds are actively growing. For weeds such as biennial thistles, spotted and diffuse knapweed, yellow starthistle and Canada thistle, apply the 4 pint per acre rate on light to moderate infestations under good growing conditions. Use 5 pints per acre for dense infestations or under poor growing conditions such as drought. For control of Russian knapweed, apply 5 pints per acre at the early bud to mid-flowering stage or on fall regrowth. **Note:** For rangeland and pasture use follow the Use Restrictions listed in the Directions for Use section of this label.

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).

#### **Specific Use Restrictions:**

- Do not apply more than 5 pints of Curtail M (0.26 lb ae/A clopyralid and 1.5 lb ae MCPA) per acre per year. Do not make more than 2 applications per year with a minimum retreatment interval of 21 days.
- Do not apply more than 1.5 lb ae/acre of MCPA per year from any source.
- Do not allow dairy animals or meat animals being finished for slaughter to forage or graze treated areas within 7 days of application.

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

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

#### **Application Timing**

Curtail M 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 M 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 a treating with Curtail M before seeding grasses.

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

## **Application Rate**

Apply 3 1/2 to 5 pints per acre of Curtail M. Do not exceed 3 1/2 pints per acre for pre-seeding treatment.

#### **Specific Use Restrictions:**

- Do not apply more than 5 pints of Curtail M (0.26 lb ae/A clopyralid and 1.5 lb ae MCPA) per acre per year. Do not make more than 2 applications per year with a minimum retreatment interval of 21 days.
- Do not apply more than 1.5 lb ae/acre of MCPA per year from any source.
- Do not allow dairy animals or meat animals being finished for slaughter to forage or graze treated areas within 7 days of application.

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If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

## Warranty Disclaimer

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

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent permitted by law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

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To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

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

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#### Produced for Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268

Label Code: CD02-123-021 Replaced Label: CD02-123-020

EPA accepted 04/26/21

### **Revisions:**

- Updated and relocated MOA chart.
- Added "intermediate wheatgrass" to label. Personal Protective Equipment (PPE):
- - Removed "Some materials that are chemical resistant to this product are listed below."
  - Updated glove statement.
  - Removed "Additional PPE requirements...These mixers/ c. loaders also must wear:" statement.
- **Engineering Controls:** 
  - Changed "170.240 (d) (4-6) to "170.607(d-e)".
  - Added: "For aerial application to high-acreage field crops: Handlers must use closed mixing loading systems...'

- Environmental Hazards:
  - Added "NON-TARGET ORGANISM ADVISORY."
  - Updated Ground Water Advisory.
  - Added Surface Water Advisory .
- Revised Storage and Disposal section.
- Agricultural Use Requirements: Change REI from 12 to 48 hours.
- Directions for Use:
  - Updated Herbicide Resistance Management Weed Resistance Management Section
  - Updated Mandatory Spray Drift Management Section.
- Updated Spray Drift Advisories Section.
- Product Information:
  - a. Restrictions:
    - i. Added "This product is persistent...months after application.'
    - Added "Manure from animals...see, wheat and corn."

    - iii. Added "Animals that have been fed...crops are grown."iv. Added "The applicator must...duplicate records are not needed."
    - Added "Applications by property...record keeping requirement."
    - Added "Applications to public land are exempt from this notification requirement.
    - vii. Added Forage and Manure Management Pictogram.
  - Added "For more information on how to manage..."
  - Removed "Do not transfer livestock...sensitive broadleaf plants.'
- 10. Crop Rotation Intervals Charts: Moved flax to 30 days.

- 11. Uses Barley, Oats and Wheat
  - Tank Mixtures sections: Removed "It is the pesticide...in the tank mixture."
  - Specific Use Restrictions: Removed "Do not allow livestock to graze treated areas within 45 days of application.'
- 12. Flax Tank Mixtures: Removed "It is the pesticide...in the tank mixture.'
- 13. Grasses Grown for Seed:
  - Application Rate: Revised "Re-treat as necessary..." to "If necessary, two sequential applications of Curtail M at the 1 3/4 pints per acre rate can be made, separated by a minimum interval of 21 days."

    Tank Mixtures: Removed "It is the pesticide...in the tank
  - mixture.'
- Rangeland and Pastures Uses: Removed section.
- Rangeland and Permanent Grass Pastures:
  - Revised: "Note" section.
  - Specific use Restrictions: Added "(0.26 lb ae/A clopyralid and...).
- Conservation Reserve Program: Added Specific Use Restrictions.
- Changes due to Company name change:

  a. Trademark statement: Updated to " ™®Trademarks of Corteva Agriscience and its affiliated companies"
  - Produced For: Updated company name to "Corteva Agriscience LLC
  - Updated: Terms and Conditions of Use, Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies.