

62719-86

03/18/2003

1/19



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 18 2003

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Kimberly S. Gilbert
Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1054

Dear Ms. Gilbert:

Subject: Revised Label
Curtail M
EPA Registration No 62719-86
Your Submission Dated February 25, 2003

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. On page 16 delete "Non-Crop". Examples of the non-crop use sites and specific directions for use on non-crop areas do not appear on the label.

b. Under Rangeland and Pasture Uses heading delete "Use requirements. No Worker Protection Standard worker entry restrictions or worker notification requirements apply....or non-cropland areas." This is misleading since there are reentry restrictions in the Non-Agricultural Use Requirements section.

c. Delete the heading "General Use....". This term is an implied safety claim which is prohibited by 40 CFR Part 156.10(a)(5). Delete the heading "Approved Uses". This heading implies an endorsement by this Agency which is prohibited 40 CFR Part 156.10(a)(5).

2. Submit one (1) copy of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records.

2/19

-2-

If you have any questions concerning this letter, please contact Mr. James Stone at 703-305-7391.

Sincerely yours,



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

Enclosure

(Base label):

(Logo) Dow AgroSciences

Curtail* M

For selective control of broadleaf weeds in wheat, and barley, 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):

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid.....	5.0%
MCPA-EHE: 2-methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester.....	43.4%
Inert Ingredients.....	51.6%
Total.....	100.0%

Contains Petroleum Distillates

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)

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

MAR 18 2003

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 6219-26

Keep Out of Reach of Children

CAUTION PRECAUCION

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

Precautionary Statements

Hazards to Humans and Domestic Animals

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)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category B on an EPA chemical resistance category selections chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Butyl Rubber
- Shoes plus socks

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

Engineering Controls Statements

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections 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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

First Aid

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

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

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 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.

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 or rinseate.

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 that would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

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

Agricultural Use Requirements

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

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

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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

5/19

EPA Reg. No. 62719-86

EPA Est. _____

*Trademark of Dow AgroSciences LLC
Dow AgroSciences LLC Indianapolis, IN 46268 U.S.A.

Herbicide

Net Contents XXX



6/19

(Datapack cover):

(Logo) Dow AgroSciences

Curtail* M

For selective control of broadleaf weeds in wheat, and-barley, 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):

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid.....	5.0%
MCPA-EHE: 2-methyl-4-chlorophenoxyacetic acid, 2-ethylhexyl ester.....	43.4%
Inert Ingredients.....	51.6%
Total.....	100.0%

Contains Petroleum Distillates

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)

Keep Out of Reach of Children

CAUTION PRECAUCION

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

Agricultural Use Requirements

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

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

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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

EPA Reg. No. 62719-86

EPA Est. _____

*Trademark of Dow AgroSciences LLC
Dow AgroSciences LLC Indianapolis, IN 46268 U.S.A.

7/19

Herbicide

Net Contents XXX

8/19

(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals**CAUTION**

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)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category B on an EPA chemical resistance category selections chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Butyl Rubber
- Shoes plus socks

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

Engineering Controls Statements

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections 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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

First Aid

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

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

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 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.

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 ~~or rinseate~~.

9/19

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 ~~that~~ would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

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

Directions for Use

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

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; and 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 such as Barrier Laminate or Butyl Rubber
- Shoes plus socks

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.

10/19

Storage and Disposal

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

Pesticide Storage: Store above 10°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 and may contaminate groundwater. 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. Wastes~~ resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Metal Container Disposal: **Do not reuse container.** Triple rinse (or equivalent). Then offer for recycling, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

General Information

Curtail* M herbicide is recommended for selective control of broadleaf weeds in wheat, ~~and barley, 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.

General Use 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 (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.
- 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.
- 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.
- **Do not transfer livestock** from treated grazing areas (or feeding of treated hay) to sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture (or feeding of treated hay). ~~Otherwise, 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.~~

11/19

- 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. ~~The test area should~~ 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 above/below for which the rotational interval has clearly been met.

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 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, canola (rapeseed), cole crops, dry beans, flax, 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)

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 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

asparagus, <i>Brassica</i> species grown for seed, canola (rapeseed), cole crops, flax, 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 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.

~~Advisory Statements~~

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 ~~crop-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 ~~treated forage~~ or hay from treated areas on land used for growing susceptible broadleaf crops. To promote herbicidal decomposition, ~~crop-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.

~~Advisory (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.

Avoid Spray Drift

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

Ground Application: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible, by applying Curtail M in a total spray volume of 10 or more gallons or more of spray per acre, by keeping the operating spray pressures at the as a large droplet, low pressure spray. Refer to spray equipment manufacturer's minimum recommended pressures for the specified nozzle type used (low pressure nozzles are available from spray equipment manufacturers), and by spraying when the wind velocity is low (follow state regulations). Avoid application under completely calm conditions which may be conducive to air inversion. In hand-gun applications, select the minimum pressure required to obtain adequate plant coverage without forming a mist. Do not apply with a mist blower for additional information on spray volume, spray pressure, sprayer speed, type and arrangement of nozzles, height of nozzles above the target canopy, etc. Spray drift can be lessened by keeping the spray boom as low as possible; by using no more than 30 pounds per square inch (psi) spraying pressure with large droplet-producing nozzle tips; by using larger nozzle tips rather than increasing pressure to increase spray volume; and by spraying when wind velocity is low. Do not apply with hollow cone type insecticide or other nozzles that produce a fine droplet spray. Keep operating spray pressures at the lower end of the manufacturer's recommended pressure range for the specific nozzle type used. Low pressure nozzles are available from spray equipment manufacturers. Select nozzles and pressures that provide adequate plant coverage but minimize the production of fine spray particles. Avoid application under completely calm conditions which may be conducive to air inversions.

Aerial Application: With aircraft, drift can be lessened by using straight stream nozzles directed straight back; by applying a coarse spray; by using a spray boom no longer than 3/4 the wing span of the aircraft; by using drift control systems or drift control additives; and, by keeping spray pressures low enough to provide coarse spray droplets. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions, by using no more than 30 psi spray pressure at the nozzles; by using straight stream nozzles directed straight back; and by spraying only when wind velocity is low.

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

Sprayer Clean-Out

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

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

Mixing Instructions

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

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

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

Tank Mixing

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See instructions for Sprayer Clean-Out.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of 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, 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 ~~and or~~ following time of 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 will be are rainfast within 6 hours after application.

Application Rates Ranges:

Generally, ~~lower-labeled~~ 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 labeled-rates within the rate range will be needed. ~~will generally be required for more tolerant species, perennials, weeds in dense stands or in advanced stages of growth, or under conditions of plant stress such as drought or extreme temperatures.~~ 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 **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~~coverage of target weeds~~. 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 ~~or more~~ gallons or more per acre. As vegetative canopy and weed density increase, ~~in general, spray volume must should be increased as crop canopy, height and weed density increase in order 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" in "Advisory Statements" ~~section of this label~~.

Use with Sprayable Liquid Fertilizer Solutions:

Curtail M is compatible with most non-pressurized liquid fertilizer solutions; however, ~~if liquid fertilizer solutions are to be applied with Curtail M,~~ 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, ~~used as a carrier for Curtail M,~~ can cause yellowing or leaf burn of crop foliage.

Spot Treatments:

To prevent misapplication, it is recommended that spot treatments should 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 of Curtail if care is 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 1,000 sq ft. Mix the amount of Curtail M (fl oz or ml) corresponding to the desired broadcast rate in ~~one~~ one 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 3,500 sq ft, multiply the table value by 3.5 (calc. $3,500 \div 1,000 = 3.5$). 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)

[†]1 fl oz = 29.6 (30) 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) [†]	nightshade, eastern black (a)
burdock, common (b)	nightshade, hairy (a)
chamomile, false (scentless) (a)	pennycress, field (fanweed) (a)
chamomile, mayweed (dogfennel) (a)	pigweed, redroot (a)
clover, black medic (a)	pineappleweed (a)
clover, hop (a)	plantain (p)
clover, sweet (b)	radish, wild (a)
clover, red (p)	ragweed, common (a)
clover, white (p)	ragweed, giant (a)
cocklebur, common (a)	salsify, meadow (goatsbeard) (b)
coffeeweed (a)	shepherdspurse (a)
cornflower (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) [†]
knapweed, diffuse (b)	thistle, Canada (p)
knapweed, Russian (p) [†]	thistle, musk (b)
knapweed, spotted (b)	thistle, Russian (1-3-leaf) (a) [†]
kochia (2-4 leaf) (a) [†]	velvetleaf (a)
ladysthumb (a)	vetch (a)
lambsquarters, common (a)	volunteer beans (a)
lettuce, prickly (a)	volunteer lentils (a)
mustard, tumble (Jim Hill) (a)	volunteer peas (a)
	wormwood, biennial (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 the time of 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.

Crop Uses

Barley, Oats and Wheat

Application Timing

Apply Curtail M in the spring to actively growing wheat, barley 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 listed above, 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 timing of application (when the grain 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. **Note:** 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.

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 post-emergence treatment with 2,4-D or MCPA, may increase the risk of crop injury.

Tank Mixtures

Curtail M 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:

- ~~Tank mixes of Banvel~~ tank mixes with and Curtail M 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 M with 2,4-D or dicamba unless the risk of crop injury is acceptable.

Flax

Application Timing

Apply Curtail 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 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 (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 1 1/3 to 1 3/4 pint 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.

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 1 3/4 pint per acre or make more than 1 application per crop season.
- Preharvest Interval: Do not apply within 72 days of harvest.

Grasses Grown for Seed

Application Timing

18/19

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. ~~Potential for crop injury increases with higher rates. Re-treat as necessary but do not exceed 3 1/2 pints per acre of Curtail M per season.~~ For control of late-emerging Canada thistle, a pre-harvest 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 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. Re-treat as necessary but do not exceed 3 1/2 pints per acre of Curtail M per season.

Tank Mixtures for Grasses Grown for Seed

Curtail M 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

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

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

Apply 2 to 4 quarts 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 2 quart per acre rate 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. **Note:** For pasture use follow "Grazing and Haying Restrictions" under "General Use Precautions and Restrictions".

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 ~~which 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

19/19

some newly planted grass stands; however, grass stand establishment should be improved because of reduced weed competition. Wait at least 30 days after a ~~treatment~~ 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 1 3/4 to 4 3/4 quarts per acre of Curtail M. Do not exceed 1 3/4 quarts per acre for pre-seeding treatment.

Terms and Conditions of Use

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. Otherwise, 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

Dow AgroSciences 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. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

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

Limitation of Remedies

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

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

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

The terms of the Warranty Disclaimer, ~~and~~ Inherent Risks of Use, ~~above~~ and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

*Trademark of Dow AgroSciences LLC
EPA-Accepted / /