

464-625 - PM23 106:1

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION
464-625

DATE OF ISSUANCE

JAN 19 1989

TERM OF ISSUANCE
Conditional

NOTICE OF PESTICIDE: REGISTRATION
 REREGERISTRATION
(Under the Federal Insecticide, Fungicide
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT
CHLORANIL

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

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

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

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

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

1. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

2. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

3. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

4. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

5. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

6. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

7. The registrant is advised that the registration of this pesticide is conditional and is subject to the following conditions:

ATTACHMENT IS APPLICABLE

BEST AVAILABLE COPY

SIGNATURE OF APPROVING OFFICIAL

DATE

200H

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4. Submit one (1) copy of your final printed labeling before you release the product for shipment.

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

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

Richard F. Mountfort *RFM*
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosures

5011

CURTAIL* M Herbicide

For Selective Control of Broadleaf Weeds in Wheat, Barley and Oats Not Underseeded With a Legume and Conservation Reserve Program (CRP) Acres

Active Ingredient(s):

Clopyralid (3,6-Dichloro-2-pyridinecarboxylic acid)... ..5.0Z
MCPA (2-Methyl-4-chlorophenoxyacetic acid)
as the isooctyl ester.....43.4Z

Inert Ingredients:51.6Z

Acid Equivalents:

3,6-Dichloro-2-pyridinecarboxylic acid, 5.0Z - 0.42 lb/gal
2-Methyl-4-chlorophenoxyacetic acid, 27.8Z - 2.35 lb/gal

EPA Registration No. 464-

EPA Establishment No. 464-MI-1

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

PRECAUTION:

PRECAUTION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUSES EYE INJURY ● HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN

Avoid Contact With Eyes, Skin Or Clothing ● Avoid Breathing Spray Mist ● Wash Thoroughly With Soap And Water After Handling ● Remove Contaminated Clothing And Wash Before Reuse

STATEMENTS OF PRACTICAL TREATMENT

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists. If on skin, wash with plenty of soap and water. Get medical attention if irritation persists. If swallowed, do not induce vomiting. Call a physician immediately.

Physical or Chemical Hazards

COMBUSTIBLE ● Do Not Use Or Store Near Heat Or Open Flame ● Do Not Cut Or Weld Container

Environmental Hazards

Do not contaminate water when disposing of equipment washwaters ● Do not contaminate water used for irrigation or domestic purposes ● Do not apply directly to any body of water or wetlands ● See additional precautionary statements elsewhere on this label

NOTICE

Read the entire label. Use only in accordance with label directions. Before buying or using this product, read "WARRANTY LIMITATIONS AND DISCLAIMER" elsewhere on this label. If terms are not acceptable, returned unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under "WARRANTY LIMITATIONS AND DISCLAIMER."

IN CASE OF AN EMERGENCY endangering life or property involving this product, call collect 517-636-4400

AGRICULTURAL CHEMICAL

Do Not Ship - Store with Food, Feeds, Drugs or Clothing

JAN 19 1989

DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

CURTAIL M Herbicide is recommended for selective, postemergence control of the following broadleaf weeds in wheat, barley and oats not underseeded with a legume and land in the Conservation Reserve Program (CRP).

- | | |
|--------------------------------|-------------------------------|
| alfalfa | nightshade, cutleaf |
| artichoke, Jerusalem | nightshade, hairy |
| buckwheat, wild | pennycress, field (fanweed) |
| burdock, common | # pigweed, redroot |
| chamomile, false (scentless) | pineappleweed |
| chamomile, mayweed (dogfennel) | plantain |
| clover, sweet | radish, wild |
| clover, red | ragweed, common |
| cocklebur, common | ragweed, giant |
| coffeeweed | salsify, meadow (goatsbeard) |
| cornflower (bachelor button) | shepherdspurse |
| dandelion | sicklepod |
| dock, curly | smartweed, Pennsylvania |
| # flixweed | sorrel, red |
| groundsel, common | sowthistle, annual |
| hawksbeard, narrowleaf | # sowthistle, perennial |
| horseweed | starthistle, yellow |
| Jimsonweed | sunflower, common |
| knapweed, diffuse | # tansymustard, pinnate |
| # knapweed, Russian | thistle, Canada |
| knapweed, spotted | thistle, musk |
| # kochia (2-4 leaf) | # thistle, Russian (1-3 leaf) |
| ladysthumb | velvetleaf |
| lambsquarters, common | vetch |
| lettuce, prickly | volunteer beans |
| mustard, tumble (Jim Hill) | volunteer lentils |
| mustard, wild | volunteer peas |

These weeds may only be suppressed. Suppression is a visible reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree of weed control and duration of effect will vary with weed size and density, spray rate and coverage, and growing conditions before, during and after the time of treatment. For perennial weeds, CURTAIL M Herbicide will control the initial top growth and inhibit regrowth during the season of application (season-long control). At the higher use rates shown on this label, CURTAIL M Herbicide 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.

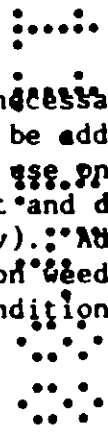
Timing: Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. **Only weeds which are emerged at the time of application will be affected.** Wet foliage at the time of application may decrease control. The CURTAIL M Herbicide treatment will be rainfast within 6-8 hours after application.

Rate: Generally, lower labeled application rates will be satisfactory for young, succulent growth of sensitive 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 will be needed. Weeds in fallow or other areas where crop competition is not a factor will generally require higher rates to obtain control or suppression.

Coverage: Adequate spray coverage and drift control are important. Obtaining a balance between spray coverage and drift control may sometimes be difficult, but can be achieved, provided the applicator understands the factors affecting coverage and drift. Factors affecting spray coverage include spray volume, crop canopy and weed density. As crop canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Refer to manufacturer's recommendations for information on the relationship between gallons per acre, spray pressure, sprayer speed, nozzle type and arrangement, nozzle height above the target canopy, droplet size and drift potential for respective application equipment. Do not apply less than 2 and not more than 40 gallons per acre total spray volume. For best results, apply 5 or more gallons per acre by air and 10 or more gallons per acre by ground. Reducing total spray volume may result in decreased coverage and weed control. Use enough total spray volume and a delivery system to provide thorough coverage and a uniform spray pattern. Do not apply where spray drift may be a problem due to proximity of susceptible crops or other desirable plants.

Use of Surfactants

Addition of wetting and/or penetration agents is not usually necessary when using CURTAIL M Herbicide, however, if a surfactant will be added to the spray solution, use a nonionic surfactant approved for use on growing crops, such as X-77, of at least 80% active ingredient and do not exceed 4 pints per 100 gallons of spray solution (0.5% v/v). Adding a surfactant to the spray mixture may increase effectiveness on weeds, but may reduce selectivity to the crop, particularly under conditions which promote plant stress.



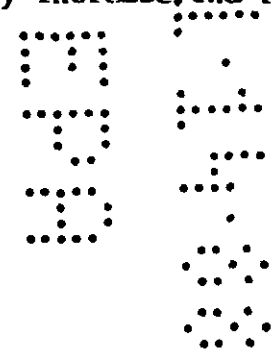
Use With Sprayable Liquid Fertilizer Solutions

CURTAIL M Herbicide is compatible with most non-pressurized liquid fertilizer solutions. However, if these solutions are to be sprayed with CURTAIL M Herbicide, 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 water source changes, or when tank mixture ingredients or concentrations are changed. A compatibility test is performed by pouring 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 COMPLEX 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 rates should not exceed 50% of the total spray volume. Premix CURTAIL M Herbicide 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.

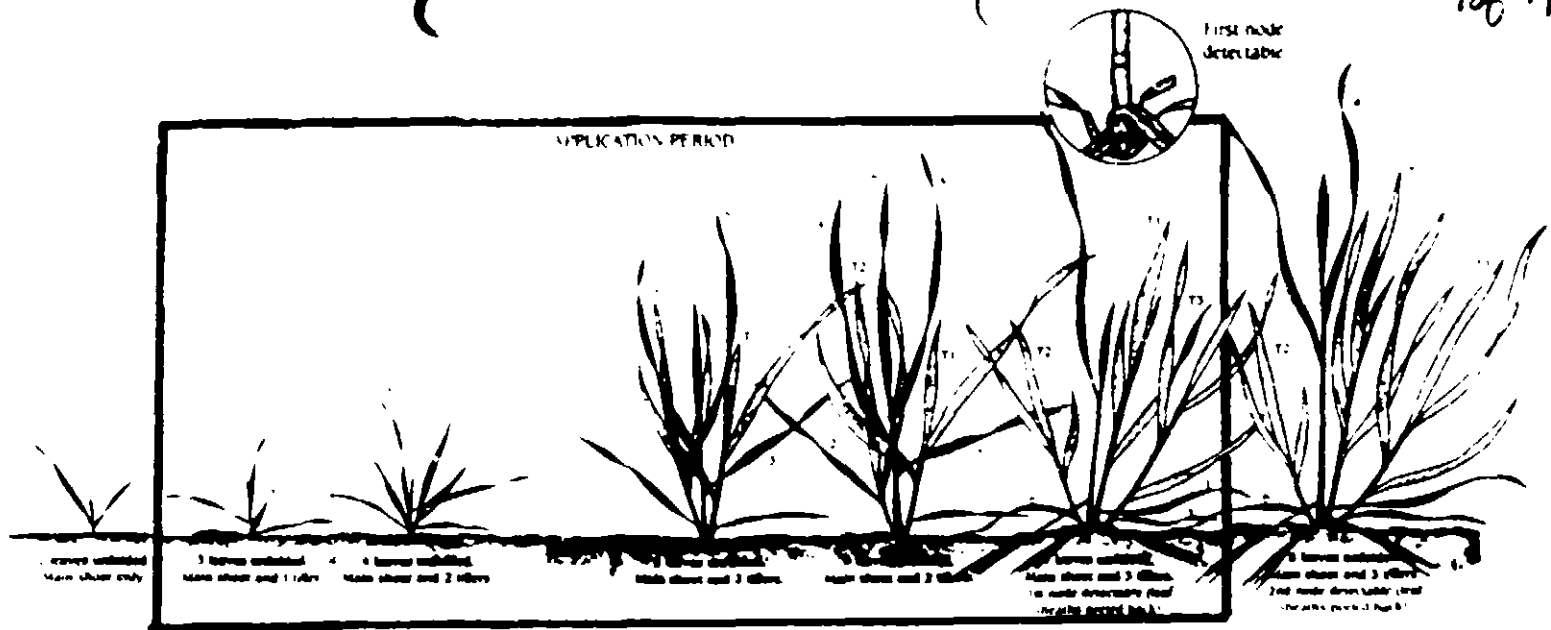
WHEAT, BARLEY AND OATS

Timing: Apply CURTAIL M Herbicide in the spring to actively growing wheat, barley or oats once 3 leaves have unfolded on the main stem and up to the jointing stage (first node of main stem detectable). To control or suppress 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, but before bud stage. A later timing of application (when the grain is between the jointing and boot stages) may be used to treat later-emerging weeds, however, this may increase the risk of crop injury. Do not apply after the boot stage. **Note:** Do not permit 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.

Rate: Apply 1-3/4 to 2-1/3 pints of CURTAIL M Herbicide per acre. 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 Herbicide or CURTAIL M Herbicide applications following spring postemergence treatments with 2,4-D or MCPA may increase the risk of crop injury.



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Tank Mixtures for Wheat, Barley and Oats

This product may be tank mixed with the following herbicides for control of additional weeds in wheat, barley and oats. Read and follow the label of each tank mix product used for precautionary statements, directions for use, weeds controlled and geographic and other restrictions. When tank mixing, use in accordance with the most restrictive of label limitations and precautions. No label dosages should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Active Ingredient	Product	Formulation	Amount of Product Per Acre
bromoxynil !	Buctril	2 lb/gal	3/4 to 1 pt
	Buctril 4EC	4 lb/gal	3/8 to 1/2 pt
	Buctril ME4		
chlorsulfuron	Glean	75ZDF	1/6 to 1/4 wt oz
	Banvel	4 lb/gal	1/8 to 1/4 pt
dicamba # !	Avenge	2 lb/gal	2-1/2 to 4 pt
difenzoquat @	Direx 4L	4 lb/gal	1 to 1-1/2 pt
diuron	Diuron 4L		
	Diuron 80 WDG	80Z DF	1/2 to 1 lb
	Diuron DF	80Z WP	
		4 lb/gal	up to 1/2 pt
2,4-D # @	Lexone DF	75Z DF	2-1/2 to 4 wt oz
metribuzin @	Sencor DF		
metasulfuron methyl	Ally	60Z DF	1/10 wt oz
terbutryn @	Igran 80 WP	80Z WP	6 to 10 wt oz
thiometuron	Harmony	75Z DF	1/3 to 1/2 wt oz

Note: Do not tank mix CURTAIL M Herbicide with 2,4-D or dicamba unless the risk of crop injury is acceptable.

! = Butril or Banvel tank mixes with CURTAIL M Herbicide may be useful in broadening the annual weed control spectrum, but may reduce control of perennials, such as Canada thistle.

* = Tank mix for application on wheat and barley only.

GRASSES GROWN FOR SEED

Rates: Use 1-3/4 to 3-1/2 pints of CURTAIL M Herbicide per acre 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.

Timing: Apply only to established grasses before the boot stage. Applications in the boot stage and beyond will result in increased injury. Do not apply to bentgrass unless injury can be tolerated.

CONSERVATION RESERVE PROGRAM (CRP) FOR SEEDING TO PERMANENT GRASSES ONLY

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

Grass grown on CRP acres cannot be grazed or used for hay.

Timing: CURTAIL M Herbicide can be applied when perennial grasses have become established (tillering, with at least 1.5 inches secondary roots, and good vigor). For control of weeds such as musk thistle (after rosette stage), Canada thistle and knapweed (diffuse, spotted and Russian) apply to actively growing weeds after the majority of the basal leaves have emerged, but before bud stage. Later applications may result in less consistent control.

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.

Rate: Apply 1-3/4 to 4-3/4 quarts of CURTAIL M Herbicide per acre.

USE PRECAUTIONS

Apply only once per 12 month period.

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil, therefore, do not apply CURTAIL M Herbicide 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.

Do not plant or rotate to any crop for one year after treatment except for wheat, barley, oats, grass or sugar beets. To avoid potential phytotoxicity, do not plant peas, lentils, beans (except soybeans) or broadleaf seed crops for 18 months after treatment unless the risk of injury is acceptable.

Avoid Spray Drift: Applications should be made to avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. Use coarse sprays to minimize drift since, under adverse weather conditions, fine droplets may drift a mile or more. Fine droplets can present a drift hazard. A drift control or deposition agent such as NALCO-TROL 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: To minimize spray drift, apply CURTAIL M Herbicide in a total spray volume of 10 or more gallons per acre as a large-droplet, low pressure spray. Refer to manufacturer's recommendations for additional information on gallons per acre, spray pressure, sprayer speed, nozzle types and arrangements, nozzle heights above the target canopy, etc. for respective application equipment. Spot treatments should only be applied with a calibrated boom to prevent misapplication. With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying no more than 20 gallons of spray per acre; by using no more than 30 pounds spraying pressure with large droplet-producing nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 miles per hour. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

Aerial Application: With aircraft, drift can be lessened by applying a coarse spray; by using no more than 30 pounds spray pressure at the nozzles; by using straight stream nozzles directed straight back; by using a spray boom no longer than 3/4 the wing span of the aircraft; and by spraying only when the wind velocity is less than 6 mph.

Do Not Apply By Aircraft When An Air Temperature Inversion Exists: Such a condition is characterized by little or no wind and with 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 the site of application will indicate air direction and velocity, and whether a temperature inversion is present, which is shown by the layering of the smoke.

Do not move treated soil and avoid situations where treated soil particles may blow into areas where susceptible crops are grown. Violent windstorms may move soil particles. If this product is on soil particles and they are blown onto susceptible plants, visible symptoms may appear. Serious injury is unlikely. The hazard of movement of this product on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.

Straw from treated areas, or manure from animals which have grazed treated areas, cannot be used for composting or mulching on ground where susceptible crops may be grown the following season. To promote herbicide decomposition, plant material should be evenly incorporated or burned.

Do not use in a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

Do not contaminate water when disposing of equipment washwaters. Apply this product only as specified on this label.

Do not contaminate irrigation ditches or water used for domestic purposes.

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing on untreated pasture. Otherwise, urine may contain enough clopyralid to cause injury to sensitive broadleaf plants.