

# U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

EPA Reg. Number	r
48273-15	

Date of Issuance:

**6** FEB 2009

NOTICE OF PESTICIDE:

\_ Registration

x Reregistration (under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Toram 101

Name and Address of Registrant (include ZIP Code):

Marman USA (Nufarm Americas, Inc.) 150 Harvester Drive, Suite 200 Burr Ridge, IL 60527

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

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

This product is reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.
- 2. A stamped copy of your labeling is enclosed for your records. Submit one copy of the revised final printed label for the record 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 sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.
- 3. Make the following label revisions:
  - a. The Agency recommends that additional text be added to the Note to Physician that addresses eye irritation concerns. The following statements are suggested types of information if applicable:
    - -technical information of symptomatology;
    - -medicine that will counteract the specific physiological effects of the pesticide;
    - -company telephone number to specific medical personnel who can provide specialized medical advice

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Signature of Approving Official:

Joanne I. Miller

Product Manager 23 Herbicide Branch

Registration Division (7505P)

Date:

**€6** FEB 2009

EPA Form 8570-6

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b. Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to read:

"WARNING

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing."

- c. The following revisions are needed to the handler PPE section:
  - -The text "Some materials that are chemical-resistant to this product are listed below" must be revised to specify the appropriate chemical-resistant material for this product and the text "are listed below" must be deleted.
  - -The text "when applying postharvest dips or sprays to citrus" must be removed from the glove and apron statements because these uses do not appear on the label as a use for this pesticide.
  - -The text "protective eyeware" must be revised to read "goggles or face shield."
- d. The mechanical transfer engineering control text is no longer needed and may be deleted from the label.
- e. Per the 2,4-D RED, the second statement of the User Safety Recommendations should read as follows:
  - "User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water."
- f. Per the 2,4-D RED, the first part of the Environmental Hazards statement should read as follows:
  - "This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate."
- g. Per the 2,4-D RED, the REI must be revised to 48 hours as required for products containing the amine (salt) forms. The early entry glove statement must be revised to read "chemical-resistant gloves made of any waterproof material."
- h. Convert Application Rates to fluid ounces (fl. oz.) or gallons (gal.). A conversion chart would help clarify volumes to users.

i. The following revisions are needed to the directions for use:

#### Non-Crop:

-Per the 2,4-D RED, the following restriction must be added to the label and conflicting text must be deleted:

#### "Annual and Perennial Weeds:

Limited to 2 applications per year.

Maximum of 2.0 lbs ae 2,4-D per acre per application.

Minimum of 30 days between applications.

#### **Woody Plants:**

Limited to one application per year.

Maximum of 4.0 lbs ae 2,4-D per acre per year."

#### Pasture and Rangeland:

-Per the 2,4-D RED, add the following text in **bold type** to the pasture and rangeland rate restrictions currently on the label, delete the duplicate "Restrictions" on Page 7 of the label, and delete any conflicting text in the pasture and rangeland use directions:

"For susceptible annual and biennial broadleaf weeds: Do not apply more than 1.0 lbs of 2,4-D ae per acre per application.

For moderately susceptible biennial and perennial broadleaf weeds, difficult to control weeds and woody plants: Do not apply more than 2.0 lbs of 2.4-D ae per acre per application.

Maximum of 2 applications per year.

Maximum of 4.0 lbs 2,4-D ae per acre per year.

Minimum of 30 days between applications."

#### Forestry:

- Per the Picloram RED, the forestry rate restrictions must be revised to specify that "the maximum application rate for forestry use is 1.0 lbs ae of picloram per acre per application and this product may only be applied once every 2 years." Any conflicting text ("apply no more than 8 quarts per acre per 12 months") must be deleted from the label.
- j. A Picloram Stewardship Program is required to maintain registration of all end use products containing picloram. The program requires that you include the following Picloram Stewardship Program language on your product's label:

"Every 2 years starting January 1, 2008, the registrant will offer training to applicators which will cover application techniques and product stewardship particular to their use(s) of this product (Toram 101, Registration No. 48273-15). Applicators of this product must be able to provide certification of such training on demand to the State, Tribal or Federal enforcement agent."

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k. Add the following statements to the labeling:

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in <u>Washington Toxics Coalition</u>, et al. v. <u>EPA</u>, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

1. Assure that the required acid equivalents per acre (lbs ae/A) restrictions are expressed as product volume or product weight per unit area that are in the same units as the registered application rate already on the label. Assure that the revised maximum application restrictions do not exceed the highest currently registered rate for each appropriate application site. Finally, assure that the most restrictive of the required limitations for the active ingredients in this product are placed on the labeling.

A stamped copy of your labeling is enclosed for your records. Submit one (1) copy of the revised final printed label for the record 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 sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Enclosure

### RESTRICTED USE PESTICIDE

May Injure (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

# TORAM 101 SPECIALTY HERBICIDE

For the control of herbaceous broadleaf weeds, woody plants and vines on forest planting sites and non-crop areas including industrial, manufacturing, and storage sites; rights-of-ways, such as electrical power lines, communication lines, pipelines, highways, railroads; and wildlife openings in forest and non-crop areas

Not for sale, distribution or use in Nassau and Suffolk Counties in New York State

Picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt		
OTHER INGREDIENTS:		
	TOTAL:	100.0%
Acid equivalents:		
Picloram: 4-amino-3,5,6-trichloropicolinic acid		
2,4-dichlorophenoxyacetic acid		21.2%, 2 lb/gal

# KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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.)

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 48273-15 EPA EST. NO. MANUFACTURED FOR: MARMAN USA (NUFARM AMERICAS INC.) 150 HARVESTER DRIVE BURR RIDGE, IL 60527



**NET CONTENTS:** 

048273-00015.20071114 pending RED NUP-06095

ACCEPTED with COMMENTS In EPA Letter Dated:

题 8 FEB 2009

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

48213-15



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Corrosive · Causes Irreversible Eye Damage · Harmful If Swallowed Or Inhaled.

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

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

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

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

See engineering controls for additional requirements

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

#### **Engineering Controls**

For containers of 5 gallons or more: A mechanical system (such as probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Workers 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.

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

#### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

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

	FIRST AID
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	HOT LINE NUMBER tainer or label with you when calling a poison control center or doctor, or going for treatment. 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to some plants at very low concentrations. This pesticide may be toxic to fish and aquatic invertebrates. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

2,4-D has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

#### PHYSICAL AND 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.

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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- · Coveralis
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Neoprene Rubber, Natural Rubber, Polyvinyl Chloride (PVC), or Viton
- · 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: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### **GENERAL INFORMATION**

This product is recommended for the control of herbaceous broadleaf annual and perennial weeds, woody plants and vines on forest planting sites and non-crop areas including industrial manufacturing and storage sites, rights-of-way, such as electrical power lines, communication lines, pipelines, highways, railroads, and wildlife openings in forest and non-crop areas.

Unless otherwise noted in Application Directions Section, use this product at rates of 2 to 8 pints per acre to control broadleaf weeds and at rates of 1 to 2 gallons per acre to control woody plants and vines. This product may be tank-mixed with Garlon® 4 Ultra or Garlon 3A herbicides, or 4 lb/gal 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank-mixing, observe all precautions, directions, and limitations on both products' labeling. In all cases use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

**Note:** This product does not mix readily with oils. Use of a non-ionic agricultural surfactant, such as Ortho X-77, Triton AG-98, or Tronic, is recommended for all applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

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Herbicidal effects of this product occur primarily from uptake by plant foliage and translocation throughout the plant, however, herbicidal activity may occur from soil uptake of pictoram. Very small amounts can kill or damage broadleaf plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

#### PRECAUTIONS AND RESTRICTIONS

#### Not for sale, distribution or use in Nassau and Suffolk Counties in New York State

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Application Rate Ranges: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

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

Be sure that use of this product conforms to all applicable regulations.

Do not make application when circumstances favor movement from treatment site.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

#### **Grazing Restrictions:**

- There are no grazing restrictions for non-lactating dairy animals or other livestock including horses, sheep, goats, and other animals in the treatment area.
- · Do not allow lactating dairy animals to graze treated areas within 7 days after application.
- · Do not harvest grass cut for hay from treated areas for 30 days after application.
- · Meat animals must be withdrawn from treated forage at least 3 days before slaughter.

On areas treated with this product, do not rotate to crops intended for food or feed use, other than grasses, rye, forage sorghum, sudangrass, wheat, barley or oats not underseeded with a legume.

Do not move treated soil to other areas or use it to grow plants if they are not registered for use with pictoram until an adequate sensitive bioassay or chemical test shows that no detectable pictoram is present in the soil.

Do not spray pastures if the loss of legumes cannot be tolerated. This product may injure or kill legumes. New legumes seedlings may not grow within 2 years following application of this herbicide.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth (see Planting Grasses Section).

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing grass that has been treated with picloram. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough pictoram to cause injury to susceptible plants.

#### Do not mix with dry fertilizer.

Do not use plant material from treated areas for composting or mulching of susceptible broadleaf plants.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes: Do not apply to snow or frozen ground.

#### Do not use on sub-irrigated land.

Do not apply or otherwise permit this product or sprays containing this product to contact crops or other desirable broadleat plants including, but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees.

Do not make application when circumstances favor movement from treatment site.

This product should not be applied on residential or commercial lawns or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply this product within the root zone of desirable trees unless injury can be tolerated.

Avoid injury to newly planted conifers. Conifer planting intervals vary. Pines planted sooner than 6 months after treatment with this product may be injured in the south or west of the Cascade Mountains. Other conifers, west of the Cascade Mountains, may be injured if planted sooner than 8 to 9 months after treatment. For all conifers, the waiting period treatment and planting should be 11 to 12 months in the area between the Cascade and Rocky Mountains and 8 to 9 months in the lake States and Northeastern U.S.

#### Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.



#### **Droplet Size**

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

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

#### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors ontarget deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swatch unsprayed at the downwind edge of the treated field.

#### Temperature Inversions

If applying at wind speeds greater than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, fruit trees, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

#### **Equipment**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### **Aerial Application**

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

#### **Ground Boom Application**

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

# SPECIFIC USED DIRECTIONS FORESTRY AND NON-CROP AREAS

#### Restrictions:

- · For broadcast applications, apply no more than 8 quarts per acre per 12 months.
- For basal spray, cut surface stumps, and frill, apply no more than 2 gallons per 100 gallons of spray solution and 1 basal spray
  or cut surface application per year.
- For injection applications, apply no more than 2 mL of 2 gallons formulation per injection site.

#### HIGH VOLUME LEAF-STEM TREATMENT

Use this product at the rate of 1 gallon in water to make 100 gallons of spray to control broadleaf weeds, vines, and other woody plants. To control a wider range of plant species, mix 1 to 2 quarts of this product with 1 to 3 quarts of Garlon 4 Ultra herbicide or 1 to 4 quarts of Garlon 3A Herbicide or 4 lb/gal 2,4-D low-volatile ester and dilute to make 100 gallons of spray. Apply after the foliage is well developed and in a manner to give thorough spray coverage. For woody plants, apply the spray mixture in a manner which thoroughly wets all leaves, stems, and root collars. For hard-to-kill species, such as ash and oak, also wet the soil around the root collar. The amounts of spray mixture applied per acre will vary with plant size and density; however, total use of this product must not exceed 8 quarts per acre.

Note. Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf plants, and do not wet the soil over roots of such plants.

#### **BROADCAST GROUND OR AERIAL FOLIAGE TREATMENT**

To obtain adequate plant coverage, it is recommended that ground applications of this product be made in 15 or more gallons of total spray mixture per acre. For aerial applications, use of 5 to 20 gallons per acre of spray mixture is recommended. Use higher spray volumes where plants are tall, where the vegetation to be treated is dense, or where difficult to control species are present.

#### **Broadleaf Annual and Perennial Weed and Woody Vine Control**

Use this product at rates of 2 quarts to 8 quarts per acre in a water spray mixture. Apply to problem weeds and vines any time after growth begins and the spring and late summer or fall.

For seasonal control of vigorously growing stands of field bindweed, Canada thistle, or mixtures of these with susceptible annual weeds such as ragweed, dandelion, plantain, clovers, and dock use 2 to 3 quarts of this product per acre in water spray.

In arid areas and for control of more resistant perennial weeds use 4 to 8 quarts of this product per acre. Use 4 to 6 quarts per acre to control species such as Canada thistle, field bindweed, and milkweed. The higher rates should be used under drought stress conditions and for the less susceptible species such as bouncingbet, leafy spurge, toadflax, and woody vines. The spectrum of activity can be improved by tank-mixing 2 to 4 quarts of this product with 1/3 to 1 gallon of Garlon 3A or 1 to 3 quarts of Garlon 4 per acre.

#### **Woody Plant Control**

Use this product at the rate of 4 to 8 quarts per acre in a water spray mixture.

For susceptible seedling stages of species such as aspen, cherry, and sumac use 4 to 6 quarts of this product per acre in a water spray mixture.

For more mature and/or less susceptible species such as Poison oak, blackberries, Douglas fir, willow, buttonbush, black locust, sassafras, sumac, tulip poplar, and cherry use 8 quarts of this product per acre in a water spray mixture.

For more resistant brush, such as maple, pine, sourwood, blackgum, cedar, and oak, and to improve the spectrum of species controlled, 4 to 8 quarts of this product per acre can be tank mixed with 2 to 8 quarts per acre of Garlon 3A, Garlon 4 Ultra, or 4 lb/gal 2,4-D low-volatile ester.

**Note:** For best results under conditions of drought stress, use the higher rates recommended. Even these rates under such conditions may not be as effective as the lower rates under good growing conditions.

#### **BROADCAST TREATMENTS FOR FOREST SITE PREPARATION (not for conifer release)**

For broadcast applications apply the recommended rate of this product in a total spray volume of 5 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Use application systems designed to prevent spray drift to off-target sites. Nozzles or additives that produce larger droplets may require higher spray volumes to provide adequate coverage. **Note:** This use is not intended for conifer release (see precautions).

## Southern States Including Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas, and Virginia

To control susceptible woody plants and broadleaf weeds, apply this product at a rate of 6 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 6 to 8 quarts per acre of this product in tank mix combination with 2 to 4 quarts per acre of Garlon 4 Ultra herbicide. Where grass control is also desired, this product, alone or in combination with Garlon 4 Ultra, may be tank mixed with 1 to 4 quarts per acre of Accord XRT or Roundup herbicide, or 8 to 16 fluid ounces per acre of Arsenal Applicator's Concentrate herbicide. Susceptible woody plants, broadleaf weeds, and grasses may also be controlled using a tank mix of 6 to 8 quarts per acre of this product and 3 to 5 quarts of Accord XRT or Roundup herbicide, or 16 to 24 fluid ounces of Arsenal Applicator's Concentrate. When applying tank mixes, follow use directions and precautions on each product label:

#### In Western, Northeastern, North Central, and Lake States (States not listed above as Southern States)

To control susceptible woody plants and broadleaf weeds, apply this product at a rate of 4 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 4 to 8 quarts per acre of this product in tank mix combination with 1-1/2 to 3 quarts of Garlon 4 Ultra. Where grass control is also desired, this product alone or in tank mix combination with Garlon 4 Ultra, may be applied with 1 to 3 quarts per acre of Accord or Roundup, 2 to 4 fluid ounces of Oust, a combination of Accord XRT (or Roundup) plus Oust at the rates listed, or 8 to 16 fluid ounces of Arsenal Applicator's Concentrate. When applying tank mixes, follow the use directions and precautions on each product label.

#### CONIFER STRIP THINNING IN THE NORTHEASTERN UNITED STATES

To thin stands of naturally regenerated spruce and fir by applying herbicide in treated bands or strips in which alternate with untreated bands or strips, apply this product such that the application rate in the treated bands or strips is 2 gallons of herbicide per acre in a total spray mixture volume of 12 to 20 gallons. For best results, apply during the period of active conifer growth. To obtain the precise placement of spray mixture in the treated bands that is required for this technique, aerial applications should be made using a helicopter equipped with a Microfoil or Thru-Valve boom. Multiple treated bands may be obtained within a single spray swath by establishing alternating series of flowing and blocked spray nozzles.

Note: Injury or death of desired residual conifers may result in spray mixture is permitted to contact their foliage as a result of inaccurate flight guidance during aerial application or as a result of spray drift from treated into untreated strips.

#### **CUT SURFACE TREATMENTS**

In forest and other non-crop areas to kill unwanted trees such as elm, maple, oak, and pine apply this product, either undiluted or diluted in a 1:1 ratio with water, as directed below.

#### With Tree Injector Method

Application should be made by injecting 1/2 milliliter of undiluted product or 1 milliliter of dilute solution through the bark at intervals of 3 inches between edges of the injector wound. The injections should completely surround the tree at any convenient height.

Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

#### With Frill or Girdle Method

Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with the diluted solution.

#### Stump Treatment

Spray or paint to wet the cut surfaces of freshly cut stumps or stubs with this product undiluted or diluted 1:1 in water. All of the cambium area next to the bark is the most vital area to wet.

The above methods may be used successfully at any season except during periods of heavy sap flow of certain species, such as maples, or during drouthy periods. Untreated trees within a few feet of the treated trees or stumps may be injured or killed



#### **BROADCAST CUT STUBBLE TREATMENT**

To prevent resprouting of susceptible woody species, after mowing or hand-cutting on non-crop areas and rights-of-way, use this product at the rate of 8 quarts per acre in 25 or more gallons of a water spray mixture. Best results may be obtained when applications are made before or during periods of active root growth. Applications should not be made when the soil surface is frozen or covered by snow or standing water. It is recommended that applications be made soon after cutting, before sprouting of woody species has occurred.

#### PLANTS CONTROLLED BY THIS PRODUCT

#### Annual and Perennial Broadleaf Weeds Controlled by this product

bindweed, field goldenrod bouncingbet horsenettle carrot, wild knapweed chicory milkweed clover plantain dandelion prickly lettuce dock ragweed fleabane ragwort, tansy rush skeleton weed

sowthistle spurge, leafy starthistle, yellow thistles

toadflax vetch

#### Woody Plants and Vines Controlled by this product

ailanthus fir, balsam aorse aspen gum birch hemlock blackberry hickory bracken fern honeysuckle buttonbush kudzu cherry locust Douglas fir maple oak

persimmon pine poison oak sassafras sourwood spruce sumac tulip poplar wild rose willow

## APPLICATION DIRECTIONS CRP, RANGELAND AND PERMANENT GRASS PASTURES

#### Restrictions

- Preharvest Interval: Do not cut forage for hay within 7 days of application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.
- · Maximum seasonal rate: Apply no more than 2 gallons (4.0 lbs acid equivalent 2,4-D) per acre per use season
- · Use 2 or more gallons of spray solution per acre
- · Do not make more than two applications per year
- Do not apply within 30 days of previous application
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable

#### **Broadcast Foliar Application (Ground or Aerial)**

Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 10 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. If aerially applied, results will be more consistent for spray volumes of 2 or more gallons per acre. Use of the lower total spray volume with ground equipment is recommended primarily where this product is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1-1/4 times the wingspan of the aircraft.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at recommended rates. The use of a drift control additive is recommended for drift reduction and improved deposition.

#### Restrictions

- Preharvest Interval: Do not cut forage for hay within 7 days of application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.
- · Maximum seasonal rate: Apply no more than 2 gallons (4.0 lbs acid equivalent 2,4-D) per acre per use season
- · Use 2 or more gallons of spray solution per acre
- · Do not make more than two applications per year
- · Do not apply within 30 days of previous application
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable

<sup>\*</sup> Additional weeds and specific use rates and recommendations are detailed in Application Directions section below...

#### SECTION I: Control of Broadleaf Weeds and Woody Plants in the Southwest, Southeast, and Mid-Atlantic States

1-2 Pints/Acre or 3-4 Pints/Acre: Apply at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:		
Weed Species	Specific Use Directions	
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur,	Early Season: Apply at a rate of 1-2 pints/acre in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth.  Mid to Late Season: Apply at a rate of 3-4 pints/acre in late spring to early summer when weeds are 3 inches tall to early flowering.	
common ragweed, croton, horseweed,		
lambsquaters, pigweed,		
prickly lettuce, smartweed, sunflower.		
tasajillo, wild carrot		

Weed or Brush Species	Specific Use Directions
aster, heath	Apply prior to bud stage when actively growing.
aster, spiny (Mexican devilweed)	Apply prior to bud stage when actively growing.
bee plant, Rocky Mountain	Apply prior to bud stage when actively growing.
bindweed, hedge	Apply prior to bud stage when actively growing.
blackberry	Tank-mix 2 pints/acre of this product with 1 pint/acre of Garlon 4* Ultra herbicide plus surfactant. Apply in late May to early June during or after bloom (not before) when the foliage is dark green. Do not treat blackberries in the same year after mowing, shredding, or burning. Even one year after removal of top growth, blackberry stands will be more difficult to control than undisturbed stands and will require retreatment.
buckwheat, climbing false	Apply prior to seed development when actively growing.
buckwheat, wild	Apply prior to seed development when actively growing.
bulinettle, western	Apply in spring when plants begin to flower.
bundleflower, Illinois	Apply prior to bud stage when actively growing.
burdock, common	Apply prior to bud stage when actively growing.
buttercup	Apply in early spring prior to bud stage.
chickweed, mouseear	Apply prior to bud stage when actively growing.
chicory	Apply from rosette stage to early bud stage when actively growing.
coneflower, upright prairie	Apply when plants are 6 inches tall, but before flowering.
common goldenweed, Drummond's goldenweed (Isocoma spp.)	Apply in spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gallons/acre for ground and 4-5 gallons/acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing instructions).
curly dock	Early Season: Apply 2 pints/acre prior to bolting stage of growth.  Mid-to-Late Season: Apply at a rate of 3-4 pints/acre from bolting to bud stage.

Weed or Brush Species	Specific Use Directions
devil's-claw	Apply prior to flowering when actively growing.
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
eriogonum, annual	Apply prior to bud stage when actively growing.
fleabane, rough	Apply prior to bud stage when actively growing.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.
goldenrod, Missouri	Apply prior to bud stage when actively growing.
goldenweed, common, goldenweed, Drummond's (Isocoma spp.)	Apply in spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gallons/acre for ground and 4-5 gallons/acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing instructions).
hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
horsenettle, Carolina	Apply 2 pints/acre when plants are 4-6 inches tall. At 2 pints/acre retreatment may be necessary for acceptable control. Apply 3-4 pints/acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year.
horehound	Apply during active growth.
jimsonweed	Apply prior to bud stage when actively growing.
morningglory, ivyleaf	Apply prior to bud stage when actively growing.
mugwort	Apply prior to bud stage when actively growing.
nightshade, silverleaf	Apply 2 pints/acre when plants are 4-6 inches tall. Apply 3-4 pints/acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year. Retreatment is necessary for total control.
pennycress, field	Apply when plants are to 6 inches tall, but before flowering.
plantain, buckhorn	Apply prior to bud stage when actively growing.
pricklypoppy, annual	Apply prior to bud stage when actively growing.
puncturevine	Apply prior to flowering when actively growing.
ragweed, common, giant, lanceleaf and western	Use lower rates in rate range when weeds are no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
sagebrush, sand	Apply when new terminal growth reaches 6-12" and before average daytime temperature reaches 95°F. Use low rate only in early season.
snow-on-the-mountain	Apply prior to bud stage when actively growing.
sowthistle, spiny (prickly)	Apply prior to bud stage when actively growing.
stickweed	Apply 2-3 pints/acre prebloom.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pints/acre at rosette stage. Apply 3-4 pints/acre in mid to late season from bolting to bud stage.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and weeds mature.
vetch, hairy	Apply prior to bud stage when actively growing.
wingstem	Apply 2-3 pints/acre prebloom.
yankeeweed	Apply when plants are 8 to 10 inches tall.

Weed or Brush Species	Specific Use Directions
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Older plants require higher rates. Thorough uniform coverage is essential. Use higher spray volumes (20-25 gallons/acre for ground and 5 or more gallons/acre for aerial equipment.
mesquite and oak sprouts (suppression of regrowth):	Delay applications of this product for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
milkweed	Apply 4 pints/acre to actively growing milkweeds less than 4 inches tall. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
mullein, common	Apply 4 pints/acre during the rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
poisonous plants such as: groundsel (Senecio spp.), garbancillo, (Wooton loco) and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25% to 0.5% v/v) or oil-water emulsion is recommended (see Mixing Instructions). Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants are no longer palatable.
thistle, wavyleaf	Apply from rosette to late bolt stage.
tropical soda apple	Apply when plants are beginning to flower.

Weed or Brush Species	Specific Use Directions
cactus, pricklypear or cholla	Make ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.
Chinese tallowtree	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gallons/acre for ground and 5 or more gallons/acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gallons/acre for ground and 5 or more gallons/acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25 to 0.5% v/v) is recommended.

Section II: Control of Broadleaf Weeds and Woody Plants in the North and Northwestern U.S. including Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

range as growing season progresse	cated stage of growth to control the following broadleaf plant spsecies. Increase rate within rate es:
Weed or Brush Species	Specific Use Directions
absinth wormwood annual broomweed	Apply when actively growing in spring or early summer.
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pints/acre at rosette stage. Apply 3-4 pints/acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Apply after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pints/acre early season prior to bolting. Apply 3-4 pints/acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply a minimum of 3 pints/acre after seed stalk elongation and early flowering (mid - late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
hemp (marijuana) hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
ironweed, western	Apply 2-3 pints/acre prior to bud stage during active growth. A surfactant is recommended.
locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Herbicide application may increase palatability of these poisonous plants. Therefore, treated areas should not be grazed until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
phlox, hoods	Apply during active growth.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partia stand reduction. More complete control may be obtained with the higher rate. Treatmen response is very slow and may continue for 2 years or longer.
ragweed, common, giant, lanceleaf and western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pints/acre at rosette stage. Apply 3-4 pints/acre in mid to late season from bolting to bud stage.
vervain, blue and hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants mature.
wormwood, Louisiana and absinth	Apply during active growth prior to woody stem development.
yarrow	Apply 2 pints/acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Apply at the in	dicated stage of growth to control the following broadleaf weed species:			
Weed or Brush Species	Specific Use Directions			٦
dense clubmoss	Apply in early summer with a surfactant at 0.25% v/v.			
geyer larkspur	Apply from rosette to flower bud formation.			٦
hairy goldenaster	Apply at bloom stage during active growth.	··········	.,	
houndstongue	Apply to rosettes in late fall or early summer.		\$ 10	٦

Weed or Brush Species	Specific Use Directions
larkspur, plains	Apply prior to bud stage when actively growing.
licorice, wild	Apply at bloom stage, but before bur formation.
loco, woolly	Apply from bolting to early bloom. Herbicide application may temporarily increase palatability of this poisonous plant. Therefore, treated areas should not be grazed until toxic plants have dried up.
milkweed, common	Apply at bud stage when actively growing.
mullein, common	Apply during rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
oxeye daisy	Apply 3-4 pints/acre when all plants have emerged to late flowering.
pussytoes	Apply prior to bud stage when actively growing. Use a surfactant at the manufacturer's recommneded rate to improve wetting of foilage.

Weed or Brush Species	Specific Use Directions
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gallons/acre for ground and 5 or more gallons/acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25 to 0.5% v/v) is recommended.

#### **High-Volume Foliar Applications**

Spray to thoroughly wet foliage and stems. The use of an approved agricultural surfactant is recommended. To minimize spray drift, use lowest possible pressure and coarse spray to achieve good coverage. Keep sprays no higher than brush tops. Use of an approved drift control agent is recommended to reduce the potential for spray drift.

Weed or Brush Species	Specific Use Directions	
blackberry, elm, granjeno, locust, maple, oaks, sweetgum, sumac	. The state of the	
annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Apply when target weeds are 2 to 3 inches tall until early flowering.	
flameleaf sumac honeylocust,	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25 to 0.5% v/v) is recommended. Spray thoroughly to wet foilage.	
tropical soda apple	Apply when plant begins to flower.	

1-2 Gallons/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:		
Brush Species	Specific Use Directions	
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.	

Weed or Brush Species	Specific Use Directions
Chinese tallow tree	Apply in spring or fall when conditions are favorable for plant growth.
cactus, pricklypear or cholla	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% v/v) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.
common goldenweed, Drummond's goldenweed	Apply in spring (April-June) when favorable growing conditions result in substantial canopy development.
poisonous plants such as: groundsel (Senecio spp.), garbancillo (Wooton loco), and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants have dried up and lost their palatability.

#### TREATMENT AFTER PLANTING GRASSES

#### Weed Control Prior to Seeding Planting Grasses

This product may be applied to control weeds prior to planting cool season grasses.

Apply this product at 4 pints per acre or less depending on the target species. This product may be tank-mixed with glyphosate to control grasses prior to seeding.

- To optimize weed control, minimal disturbance of the treatment area with the seeding operation is suggested. The site should be left undisturbed for a minimum of 21 days prior to seedbed preparation or seeding. To optimize weed control and reduce the potential for injury of seeded grasses, increase the interval between application of this product and planting grass seed.
- · Do not plant smooth bromegrass for 60 days after treatment.

#### **Perennial Grasses**

Applications of this product to perennial grasses should be made only after perennial grasses are well established as indicated by vigorous growth and a well-developed secondary root system.

Sprigged Bermudagrass: This product at 1.5 pints per acre or less can be used on sprigged Bermudagrass once the runners (stolons) have reached 6 inches in length and growing conditions are favorable.

Overseeding: This product at rates of 1.5 pints per acre or less can be applied to areas that have been over seeded with small grains (such as barley, forage sorghum, oats, rye, ryegrass, sudangrass or wheat). Young seedling small grains or grasses are sensitive to this product. This product should not be applied until overseeded grasses are well established and at tillering stage of growth or later.

#### **Precautions**:

- Applications of this product to established warm season grasses such as Bermudagrass during initial greenup in early spring could
  delay or suppress emergence of new growth. If temporary suppression of new growth cannot be tolerated, application of this product
  should be made prior to greenup or after vigorous vegetative growth has resumed.
- . Do not use this product if legumes are a desired cover.
- · Conditions unfavorable to plant growth, such as drought, will increase potential for injury to grasses at all stages of growth.
- Crop Rotation: Do not rotate to grain sorghum (milo) if greater than 4 pints per acre of this product has been applied. For rates below 4 pints per acre, do not plant grain sorghum for 8 months after application. This product is not intended for use on land planted to sweet sorghum. To avoid potential crop injury, planting of small grains should be delayed a minimum of 60 days of soil temperatures above 40°F following application, except in Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum interval should be 90 days.
- Do not plant broadleaf crops in treated acres until an adequately sensitive bioassay (described below) shows that no detectable pictoriam is present in the soil.

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. 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 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 such as grasses, small grains (barley, oats, rye or wheat); or, after a rotational interval of 8 months, grain sorghum.



#### STORAGE AND DISPOSAL

Do not contaminate water, food, fertilizer, or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE STORAGE:** Keep container tightty closed when not in use. If exposed to subfreezing temperatures, the product should be warmed to at least 40°F and mixed thoroughly before using.

**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 cannot be used 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.

#### **CONTAINER DISPOSAL**

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). 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). 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.

Consult federal, state, or local disposal authorities for approved alternative procedures.

Spray Clean-Out: To avoid injury to desirable plants, equipment used to apply this product should be thoroughly cleaned before reusing to apply any other chemicals.

- Rinse and flush application equipment thoroughly after use. Dispose of rinse water in a non-cropland area away from water supplies.
- Rinse a second time, adding 1 quart 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.
- 4. Rinse the system twice with clean water, recirculating and draining each time.
- 5. Nozzles and screens should be removed and cleaned separately.

#### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### **LIMITATION OF LIABILITY**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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