

228-615

9/15/2009

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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:  
228-615

Date of Issuance:  
SEP 15 2009

NOTICE OF PESTICIDE:  
 Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance: conditional

Name of Pesticide Product:  
NUP-08038 Herbicide

Name and Address of Registrant (include ZIP Code):

Nufarm Americas Inc.  
150 Harvester Drive  
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 conditionally registered in accordance with FIFRA provided that you:

1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Submit the data listed below:
  - a. Within one year of the date on this registration notice, submit Storage Stability (830.6317) and Corrosion Characteristics (830.6320) studies. It is recommended that the observations be made at 0, 3, 6, 9, and 12 month intervals.
3. Revise the EPA Reg. No. to 228-615
4. Make the following label revisions:
  - a. Add a comma between "hay" and "proso" as well as between "soybean" and "sugarcane" in the list of crop use sites under the product name on page 1 of 28.

In addition, replace "small grains" with "oats, barley, wheat, triticale" and replace "turf" with "sod turf."

Continued on Page 2

Signature of Approving Official:

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

Date:

SEP 15 2009

- b. Per the revised Dicamba RED, the PPE section must be revised to read as follows:

“PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are nitrile rubber and butyl rubber. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

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

Long-sleeved shirt and long pants

Shoes plus socks, and

Chemical-resistant gloves (except for applicators using groundboom equipment, pilots and flaggers)

See engineering controls for additional requirements.”

- c. The following statement must be added to the Engineering Control Statement section:

“Pilots must use cockpits in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6).”

- d. Remove “Keep out of lakes, streams, or ponds. For terrestrial uses,” from the Environmental Hazards statement and capitalize the “d” in “do not apply directly...”
- e. Per the revised Dicamba RED, revise the early entry PPE in the Agricultural Use Requirements box to read as follows:

“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 worn over short-sleeved shirt and short pants,
- Chemical-resistant footwear plus socks,
- Chemical-resistant gloves made of any waterproof material,
- Chemical-resistant headgear for overhead exposure, and
- Protective eyewear”

- f. Replace the Non-Agricultural Use Requirements box statement, “For applicators on rangeland and permanent grass pastures, do not allow worker entry into areas until sprays have dried” with the following:

“Do not enter or allow others to enter until sprays have dried.”

- g. Replace the word “General” with “Product” in the headings “General Information,” “General Application Rates for Control or Suppression by Weed Type and Growth Stage,” “General Tank Mixing Information.” (See pgs. 4,6,8,9, and 23)

Page 3  
 EPA Reg. No. 228-615  
 Notice of Registration

- h. Remove the word “recommended” from the label in all instances where reference to application rates are made. (See pgs. 23 and 24)

Note: “recommended rates” and “General Uses/Information” are not enforceable.

- i. Footnote 3 under Table 2 on page 8 of the label must be revised to read as follows:  
 “3. Do not apply more than 32 fluid ounces (1 lb. ae Dicamba) per acre per application. Do not apply more than 64 fluid ounces (2 lbs. ae Dicamba) per acre per year. Use the higher level of listed rate ranges when treating dense vegetation growth or perennial weeds with well established root growth.”
- j. All maximum single application rates of “64 fl. oz” must be revised to “32 fl. oz” in Table 2, Table 4, and in the following crop specific sections:  
 -Between Crop Applications: “4-64 fluid ounces...” must be “4-32 fluid ounces...”  
 -Between Crop Tank Mixes: “16-64 fluid ounces...” must be “16-32 fluid ounces...”  
 -Grass grown for seed: “Apply up to 64 fluid ounces...” must be “Apply up to 32 fluid ounces...”  
 -Soybean Preharvest Applications: “Apply 8-64 fluid ounces...” must be “Apply 8-32 fluid ounces...”  
 -Sugarcane: Delete “64” for the Table 1 reference and the “Timing” paragraph  
 -(CRP) Rates and Timings: “Apply 6-64 fluid ounces...” must be “Apply 6-32 fluid ounces...”
- k. Per the revised Dicamba RED, the maximum single application rate is 1 lb. ae Dicamba per acre. Table 10 lists application rates of 1.5 and 2.0 lbs. ae per acre. All rates that exceed 2 pints must be removed from Table 10.
- l. Replace “2 quarts” with “2 pints” in the application rate text found under the ‘Ground Operated Spray Equipment’ and ‘Aerial Spray Equipment’ sections on page 23.
- m. Remove the word “crops” from “This product can be used on the following crops” on page 27, as several of the use sites listed are non-crop sites.  
 In addition, add the following statement next to “Corn”:  
 “(Not registered for use on Sweet Corn.)”  
 Also, add the following next to “Turf”: “(sod, lawns, and golf courses)”
- n. The following pre-harvest intervals must be included in the crop-specific sections:  
 Oats, grain: 7-day PHI  
 Sorghum grain: 30-day PHI  
 Sorghum forage: 20-day PHI  
 Sorghum fodder: 30-day PHI  
 Sugarcane, cane: 87-day PHI

Continued on page 4

- o. Make the following revisions to the tank mix partner registration information on page 28 of the label and update this information throughout the label:
  - 1. The following product names are no longer actively registered and must be removed from the label: Asana, Canvas, Finesse, Glean, Lexone, Tough, Bronco, Partner, Tiller, and Dakota.
  - 2. Permit and Eradicane are registered trademarks of GOWAN CO
  - 3. Sutan is a registered trademark of TRI AG Inc.
  - 4. Ambush is a registered trademark of AMVAC Chemical Corp.
  - 5. Asulox is a registered trademark of United Phosphorus
  
- 5. Submit one (1) copy of the revised final printed label for the record.

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.

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

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# NUP-08038

## Herbicide

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay proso millet, pasture, rangeland, small grains, soybean sugarcane, and turf

Also for selective broadleaf weed and brush control on noncrop lands in the following uses: rights-of-way (including roadways, utility, railroad, highway, pipeline, and rights-of-way that run through pasture and rangeland), utility facilities (including substations, pipelines, tankfarms, pumping stations, parking and storage areas, non-irrigated ditchbanks, and fencerows), fencerows, natural areas and forest site preparation. Also for use on established turf grasses (including golf courses) and lawns.

**ACTIVE INGREDIENT:**

Diglycolamine salt of 3,6-dichloro-o-anisic acid\* ..... 56.8%

**OTHER INGREDIENTS:** ..... 43.2%

**TOTAL:** ..... 100.0%

\*Contains 38.5% 3,6-dichloro-o-anisic acid (4 pounds acid equivalent per gallon or 480 grams per liter).

**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.)

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

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

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**SEP 15 2009**

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

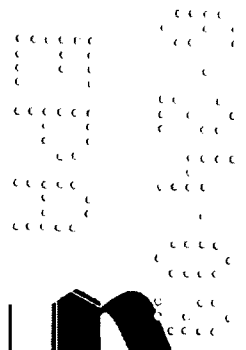
**228-615**

EPA REG. NO.  
 EPA EST. NO.

NET CONTENTS:

000000-00000.051809.EPA.NEW

MANUFACTURED FOR  
 NUFARM AMERICAS INC.  
 150 HARVESTER DRIVE  
 BURR RIDGE, IL 60527



**PRECAUTIONARY STATEMENT  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - PRECAUCION**

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Control Statement:**

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

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users Should:</b>	
<ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li>• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• 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.</li> </ul>	

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <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 the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <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>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.	

**ENVIRONMENTAL HAZARDS**

Keep out of lakes, streams, or ponds. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Apply this product only as directed on the label.

This chemical 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.

**Ground and Surface Water Protection**

**Point source contamination:** To prevent point source contamination, do not mix, load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or antisiphoning devices must be used on all mixing equipment.

**Movement by surface runoff or through soil:** Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the General Information section of this label.

**Movement by water erosion of treated soil:** Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

**Endangered Species Concerns:** The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

### 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 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.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and Warranty Disclaimer and Limitation of Liability are to be followed. This labeling must be in the user's possession during application.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 statement of this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to users of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of **24 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, waterproof gloves and 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: For applications on rangeland and permanent grass pastures, do not allow worker entry into areas until sprays have dried.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory. [This information is advisory in nature and does not supersede mandatory label requirements.]

##### Aerial Drift Reduction Advisory

**Information on Droplet Size:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

##### Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

**Wind:** Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions:** Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas:** The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

### GENERAL INFORMATION

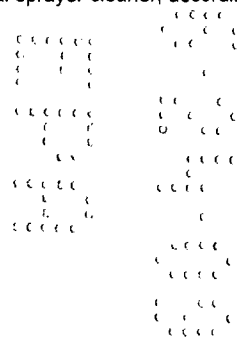
FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

This product is a water-soluble formulation intended for control and suppression of many annual, biennial, and perennial broadleaf weeds, as well as woody brush and vines listed in **Table 1, General Weed List, Including ALS- and Triazine-Resistant Biotypes**. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sorghum, soybean, sugarcane, and turf. This product may also be used on rights-of-way (including roadways, utility, railroad, highway, pipeline, and rights-of-way that run through pasture and rangeland), utility facilities (including substations, pipelines, tankfarms, pumping stations, parking and storage areas, non-irrigated ditchbanks, and fencerows), fencerows, natural areas and forest site preparation.

**Mode of Action:** This product is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. This product interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

**Resistance Management:** This product has a low probability of selecting for resistant weed biotypes.

**Cleaning Spray Equipment:** Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner, according to the manufacturer's directions, and then triple rinsing the equipment before and after applying this product.





**TABLE 1  
GENERAL WEED LIST  
(INCLUDING ALS- AND TRIAZINE-RESISTANT BIOTYPES)**

<b>Annuals</b>	<b>Annuals Cont.</b>	<b>Perennials</b>	<b>Woody Species</b>
Alkanet	Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble	Alfalfa <sup>1</sup>	Alder
Amaranth, Palmer, Powell, Spiny	Pineappleweed	Artichoke, Jerusalem	Ash
Aster, Slender	Poorjoe	Aster, Spiny, Whiteheath	Aspen
Bedstraw, Catchweed	Poppy, Red-horned	Bedstraw, Smooth	Basswood
Beggarweed, Florida	Puncturevine	Bindweed, Field, Hedge	Beech
Broomweed, Common	Purslane, Common	Blueweed, Texas	Birch
Buckwheat, Tartary, Wild	Pusley, Florida	Bursage, Woollyleaf <sup>1</sup> (Bur Ragweed, Povertyweed)	Blackberry <sup>2</sup>
Buffalobur	Radish, Wild	Buttercup, Tall	Blackgum <sup>2</sup>
Burclover, California	Ragweed, Common, Giant (Buffaloweed), Lance-Leaf	Campion, Bladder	Cedar <sup>2</sup>
Burcucumber	Rocket, London, Yellow	Chickweed, Field, Mouseear	Cherry
Buttercup, Corn, Creeping, Roughseed, Western Field	Rubberweed, Bitter (Bitterweed)	Chicory <sup>1</sup>	Chinquapin
Carpetweed	Salsify	Clover <sup>1</sup> , Hop	Cottonwood
Catchfly, Nightflowering	Senna, Coffee,	Dandelion <sup>1</sup>	Creosotebush <sup>2</sup>
Chamomile, Corn	Sesbania, Hemp	Dock <sup>1</sup> , Broadleaf (Bitterdock), Curly	Cucumbertree
Chervil, Bur	Shepherdspurse	Dogbane, Hemp	Dewberry <sup>2</sup>
Chickweed, Common	Sicklepod	Dogfennel <sup>1</sup> (Cypressweed)	Dogwood <sup>2</sup>
Clovers	Sida, Prickly (Teaweed)	Fern, Bracken	Elm add Gallberry
Cockle, Corn, Cow, White	Smartweed, Green, Pennsylvania	Garlic, Wild	Grape
Cocklebur, Common	Sneezeweed, Bitter	Goldenrod, Canada, Missouri	Hawthorn (Thornapple) <sup>2</sup>
Copperleaf, Hophornbeam	Sowthistle, Annual, Spiny	Goldenweed, Common	Hemlock
Cornflower (Bachelor Button)	Spanish Needles	Hawkweed	Hickory
Croton, Tropic, Woolly	Spikeweed, Common	Henbane, Black <sup>1</sup>	Honeylocust
Daisy, English	Spurge, Prostrate, Leafy	Horsenettle, Carolina	Honeysuckle
Dragonhead, American	Spurry, Corn	Ironweed add Ivy, Ground	Horbeam
Eveningprimrose, Cutleaf	Starbur, Bristly	Knapweed, Black, Diffuse, Russian <sup>1</sup> , Spotted	Huckleberry
Falseflax, Smallseed	Starwort, Little	Milkweed, Common, Climbing	Huisache
Fleabane, Annual	Sumpweed, Rough	Honeyvine, Western Whorled	Ivy, Poison
Flixweed	Sunflower, Common (Wild), Volunteer	Nettle, Stinging	Kudzu
Fumitory	Thistle, Russian	Nightshade, Silverleaf (White Horsenettle)	Locust, Black
Goosefoot, Nettleleaf	Velvetleaf	Onion, Wild	Maple
Hempnettle	Waterhemp	Plantain, Broadleaf, Buckhorn	Mesquite
Henbit	Waterprimrose, Winged	Pokeweed	Oak
Jacobs-Ladder	Wormwood	Ragweed, Western	Oak, Poison
Jimsonweed		Redvine	Olive, Russian
Knawel (German Moss)		Sericea Lespedeza	Persimmon, Eastern
Knotweed, Prostrate		Smartweed, Swamp	Pine
Kochia		Snakeweed, Broom	Plum, Sand (Wild Plum) <sup>2</sup>
Ladysthumb	<b>Biennials</b>	Sorrel <sup>1</sup> , Red (Sheep Sorrel)	Poplar
Lambsquarters, Common	Burdock, Common	Sowthistle <sup>1</sup> , Perennial	Rabbitbrush
Lettuce, Miners, Prickly	Carrot, Wild (Queen Anne's Lace)	Spurge, Leafy	Redcedar, Eastern <sup>2</sup>
Mallow, Common, Venice	Cockle, White	Sundrop, Halfshrub Eveningprimrose	Rose', McCartney, Multiflora
Marestail (Horseweed)	Eveningprimrose, Common	Thistle, Canada, Scotch	Sagebrush, Fringed <sup>2</sup>
Mayweed Add Medic, black	Geranium, Carolina	Toadflax, Dalmatian	Sassafras
Morningglory, Ivyleaf, Tall	Gromwell	Tropical Soda Apple	Serviceberry
Mustard, Black, Blue, Tansy, Treachle, Tumble, Wild, Yellowtops	Knapweed, Diffuse, Spotted	Trumpet creeper (Buckvine)	Spicebush
Nightshade, Black, Cutleaf,	Mallow, Dwarf	Vetch add Violet, Wild	Spruce
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)	Plantain, Bracted	Waterhemlock, Spotted	Sumac
Pepperweed, Virginia (Peppergrass)	Ragwort, Tansy	Waterprimrose, Creeping	Sweetgum <sup>2</sup>
	Starthistle, Yellow	Woodsorrel <sup>1</sup> , Creeping, Yellow	Sycamore
	Sweetclover	Wormwood, Louisiana, Common	Tarbrush Add Wax Myrtle
	Teasel	Yankeeeweed	Willow
	Thistle, Bull, Milk, Musk, Plumeless	Yarrow, Common <sup>1</sup>	Witchhazel
			Yaupon <sup>2</sup>
			Yucca <sup>2</sup>

1 Noted perennials may be controlled using lower rates of this product than those recommended for other listed perennial weeds.

2 Growth suppression only.

## APPLICATION INSTRUCTIONS

This product can be applied to actively growing weeds as aerial, broadcast, band, or spot spray applications using water or sprayable fertilizer as a carrier. For general product application rates for control or suppression by weed type and growth stage, see **Table 2, GENERAL APPLICATION RATES FOR CONTROL OR SUPPRESSION BY WEED TYPE AND GROWTH STAGE**. For crop-specific application timing and other details, refer to the **CROP-SPECIFIC INFORMATION** section.

To avoid uneven spray coverage, this product should not be applied during periods of gusty wind or when wind is in excess of 15 mph.

Avoid off-target movement. Use extreme care when applying this product to prevent injury to desirable plants and shrubs.

**Cultivation:** Do not cultivate within 7 days after applying this product.

**Sensitive Crop Precautions:** This product may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes, and other broadleaf plants when contacting their roots, stems, or foliage. These plants are most sensitive to this product during their development or growing stage.

### Recommendations to Avoid Herbicide Drift

- Use coarse sprays (volume median diameter of 400 microns or more) to avoid potential herbicide drift. Select nozzles that are designed to produce minimal amounts of fine spray particles (less than 200 microns). Examples of nozzles designed to produce coarse sprays via ground applications are Delavan® Raindrops, Spraying Systems XR (excluding 110° tips) flat fans, Turbo Teejets®, Turbo Floodjets®, or large capacity flood nozzles such as D10, TK10, or greater capacity tips.
- Keep the spray pressure at or below 20 psi and the spray volume at or above 20 gallons per acre (for ground broadcast applications), unless otherwise required by the manufacturer of drift-reducing nozzles. Consult your spray nozzle supplier concerning the choice of drift-reducing nozzles.
- Agriculturally approved drift-reducing additives may be used.

### Aerial Application Methods and Equipment

**Water Volume:** Use 1 - 10 gallons of water per acre (2 - 20 gallons of diluted spray per treated acre for preharvest uses). Use the higher spray volume when treating dense or tall vegetation.

**Application Equipment:** Select nozzles designed to produce minimal amounts of fine spray particles. Make aerial applications at the lowest safe height to reduce exposing the spray to evaporation and wind.

The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling, as well as state and local regulations and ordinances.

Do not use aerial equipment if spray particles can be carried by the wind into areas where sensitive crops or plants are growing or when temperature inversions exist.

### Ground Application (Banding)

When applying this product by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

### Ground Application (Broadcast)

**Water Volume:** Use 3 - 50 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation.

**Application Equipment:** Select nozzles designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as is practical for good weed coverage.

**Ground Application (Wipers):** This product may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush, and vines. Use a solution containing 1 part of this product to 1 part water. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label with the exception of cotton, sorghum, and soybean.

## SPRAY EQUIPMENT

### Procedure for Cleaning Spray Equipment

The steps listed below are suggested for thorough cleaning of spray equipment following applications of this product.

1. Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Flush by operating sprayer until the system is purged of the rinse water.
2. Fill tank with water while adding 1 quart. of household ammonia for every 25 gals of water. Operate the pump to circulate the ammonia solution through the sprayer system for 15 to 20 minutes and discharge a small amount of the ammonia solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two full tanks of water. The steps listed below are suggested for thorough cleaning of spray equipment used to apply this product as a tank mix with wettable powders (WP), emulsifiable concentrates (EC), or other types of water-dispersible formulations. This product tank mixes with water-dispersible formulations require the use of a water/detergent rinse.
5. Complete step 1.
6. Fill tank with water while adding 2 lbs. of detergent for every 40 gals. of water. Operate the pump to circulate the detergent solution through the sprayer system for 5 to 10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
7. Flush the detergent solution out of the spray tank through the boom.
8. Repeat step 1, and follow with steps 2, 3, and 4.

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**TABLE 2  
GENERAL APPLICATION RATES FOR CONTROL OR SUPPRESSION  
BY WEED TYPE AND GROWTH STAGE**

Use rate limitations are given in the **CROP-SPECIFIC INFORMATION** section.

Weed Type and Stage	Rate Per Acre (fl. oz.)	Weed Type and Stage	Rate Per Acre (fl. oz.)
<b>Annual<sup>1</sup></b> Small, actively growing Established weed growth	8 - 16 16 - 24	<b>Perennial</b> Top growth suppression Top growth control and root suppression Noted perennials (Footnote 1 in <b>Table 1</b> ) Other perennials <sup>3</sup>	8 - 16 16 - 32 32 - 64 64
<b>Biennial</b> Rosette diameter 1 - 3" Rosette diameter 3" or more Bolting	8 - 16 16 - 32 32 - 48	<b>Woody Brush &amp; Vines</b> Top growth suppression Top growth control <sup>2,3</sup> Stems and stem suppression <sup>3</sup>	16 - 32 32 - 64 64

- 1 Rates below 8 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
- 2 Species noted in **Table 2** will require tank mixes for adequate control.
- 3 Do not broadcast apply more than 64 fluid ounces per acre. Use the higher level of listed rate ranges when treating dense vegetative growth or perennial weeds with well established root growth.

### ADDITIVES

To improve postemergence weed control, agriculturally approved surfactants, sprayable fertilizers (urea ammonium nitrate, or ammonium sulfate), or crop oil concentrate may be added, particularly in dry growing conditions. (Refer to Table 3, Additive Rate Per Acre.)

#### Nitrogen Source

- **Urea ammonium nitrate (UAN):** Use 2 - 4 quarts of UAN (commonly referred to as 28%, 30%, or 32% nitrogen solution) per acre. Do not use brass or aluminum nozzles when spraying UAN.
- **Ammonium sulfate (AMS):** AMS at 2.5 pounds per acre may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging of nozzles. Other sources of nitrogen are not as effective as those mentioned. Nufarm Americas Inc. does not recommend applying AMS, if applied in less than 10 gallons per acre because of potential problems with precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience.

**Nonionic Surfactant:** The standard label recommendation is 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water. For certain weeds, a higher spray surfactant rate is recommended.

**Oil Concentrate:** A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- provide good mixing quality in the jar test, and
- be successful in local experience.

The exact composition of suitable products will vary; however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. For additional information, see **COMPATIBILITY TEST FOR MIX COMPONENTS**.

Adjuvants containing crop oil concentrates may be used in preplant, preemergence, and preharvest application, as well as in pastures and noncropland. Do not use crop oil concentrate for postemergence in-crop applications unless specifically allowed in the **CROP-SPECIFIC INFORMATION** section of this label.

**TABLE 3  
ADDITIVE RATE PER ACRE**

Additive	Rate Per Acre
Nonionic Surfactant	1 - 2 pints per 100 gallons
AMS	2.5 pounds
UAN Solution	2 - 4 quarts
Crop Oil Concentrate	1 quart*

\*See manufacturer's label for specific rate recommendations

## COMPATIBILITY TEST FOR MIX COMPONENTS

Before mixing components, always perform a compatibility jar test.

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **MIXING ORDER** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

Before full-scale mixing of this product with other pesticides, fertilizers, secondary plant nutrients, adjuvants, surfactants or oils, you must determine the compatibility of the proposed mixture. Use proportionate quantities of each ingredient and mix in a small container. Always mix one product thoroughly with the diluent before adding another product. If no incompatibility is evident after 30 minutes, the mixture is generally compatible for spraying. To evaluate potential short term effects of applying the mixture, test the tank mix combination on a few plants or a small area before larger-scale treatments. Wait at least 2 to 3 days for problems to become apparent.

**IMPORTANT: MIXING WITH OTHER SUBSTANCES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.**

### MIXING ORDER

1. Water. Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
2. Agitation. Maintain constant agitation throughout mixing and application.
3. Inductor. If an inductor is used, rinse it thoroughly after each component has been added.
4. Products in PVA bags. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspoemulsions).
6. Water-soluble products (such as this product).
7. Emulsifiable concentrates (such as oil concentrate when applicable).
8. Water-soluble additives (such as AMS or UAN when applicable).
9. Remaining quantity of water.

Maintain constant agitation during application.

### GENERAL TANK MIXING INFORMATION

#### TANK MIXES

Unless otherwise prohibited on this label or the label of an intended tank mix product, this product may be applied in combination with any pesticide registered for the same crop, timing, and method of application. Observe the most restrictive label statements of various tank mix products used.

**IMPORTANT: PESTICIDE TANK MIXES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.**

See **CROP-SPECIFIC INFORMATION** section for more details. Read and follow the applicable **RESTRICTIONS AND LIMITATIONS** and **DIRECTIONS FOR USE** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

This product may also be used in tank mixtures with foliar applied insecticides including synthetic pyrethroids such as Ambush<sup>®</sup>, Asana<sup>®</sup>, Pounce<sup>®</sup> and Warrior (Nufarm Kaiso<sup>®</sup>) insecticides or with the carbamate insecticide Furadan<sup>®</sup>. Do not apply this product in tank mixtures with Lorsban<sup>®</sup> insecticide.

Physical incompatibility, reduced weed control, or crop injury may result from mixing this product with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Nufarm Americas Inc. does not recommend using tank mixes other than those listed on Nufarm Americas Inc. labeling. Local agricultural authorities may be a source of information when using other than Nufarm Americas Inc. recommended tank mixes.

Accent® (nicosulfuron)  
 Ally (Nufarm Purestand®)\_ (metsulfuron-methyl)  
 Amber® (triasulfuron)  
 Asulox® (asulam)  
 Atrazine  
 Axiom™ (flufenacet + metribuzin)  
 Banvel® SGF (Nufarm Diablo®) (dicamba)  
 Basagran® (bentazon)  
 Beacon® (primisulfuron-methyl)  
 Bicep II Magnum® (s-metolachlor + atrazine)  
 Bladex® (cyanazine)  
 Bronate® (Nufarm Maestro® MA) (bromoxynil + MCPA)  
 Bronco® (alachlor + glyphosate)  
 Bucril® (Nufarm Maestro®)(bromoxynil)  
 Bullet® (alachlor + atrazine)  
 Canvas® (thifensulfuron + tribenuron + metsulfuron)  
 Caparol® (prometryn)  
 Crossbow® (Nufarm Candor™)(2,4-D + triclopyr)  
 Curtail® (Nufarm Cutback®)(clopyralid + 2,4-D)  
 Cyclone® (paraquat)  
 Dakota® (fenoxaprop + MCPA)  
 Degree™ (acetochlor)  
 Degree Xtra™ (acetochlor + atrazine)  
 DoublePlay® (acetochlor + EPTC)  
 Dual Magnum™ (s-metolachlor)  
 Dual II Magnum® (s-metolachlor + atrazine)  
 Eradicane® (EPTC)  
 Evik® (ametryn)  
 Exceed® (primisulfuron + prosulfuron)  
 Express® (Nufarm Victory™) (thifensulfuron + tribenuron-methyl)  
 Extrazine® II (cyanazine + atrazine)  
 Fallow Master® (Nufarm GlyKamba®)(glyphosate + dicamba)  
 Field Master™ (acetochlor + atrazine + glyphosate)  
 Finesse® (chlorsulfuron + metsulfuron-methyl)  
 Frontier® (dimethenamid)  
 FulTime™ (acetochlor + atrazine)  
 Garlon® (Nufarm Tahoe®) (triclopyr)  
 Glean® (chlorsulfuron)  
 Gramoxone® Extra (paraquat)  
 Guardsman® (dimethenamid + atrazine)  
 Harmony® Extra (Nufarm Treaty™ Extra) (thifensulfuron + tribenuron-methyl)  
 Harness® (acetochlor)  
 Harness® Xtra (acetochlor + atrazine)  
 Homet™ (flumetsalam + clopyralid)  
 Karmex® (diuron)  
 Kerb® (pronamide)  
 Laddok® S-12 (bentazon + atrazine)  
 Landmaster® BW (glyphosate + 2,4-D)  
 Lariat® (alachlor + atrazine)  
 Lasso® (alachlor)  
 Lexone® (metribuzin)  
 Liberty® (glufosinate)  
 Lightning® (imazethapyr + imazapyr)  
 Marksman® (dicamba + atrazine)  
 MCPA  
 Outlook® (dimethenamid-P)  
 Paramount® (quinclorac)  
 Partner® (alachlor)  
 Peak® (prosulfuron)  
 Permit® (halosulfuron)  
 Princep® (simazine)  
 Prowl® (pendimethalin)  
 Python™ (flumetsulam)  
 Ramrod® (propachlor)  
 Nufarm Credit® / Credit® Extra (glyphosate)

Touchdown® (sulfosate)  
 Tough® (pyridate)  
 2,4-D

Sencor® (metribuzin)  
 Spirit™ (primisulfuron + prosulfuron)  
 Stinger® (Nufarm Garrison® ) (clopyralid)  
 Surpass® (acetochlor)  
 Sutan® + (butylate)  
 Tiller® (fenoxapropethyl + MCPA + 2,4-D)  
 TopNotch™ (acetochlor)  
 Tordon® 22K (Nufarm Trooper™ 22K) (picloram)

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## RESTRICTIONS AND LIMITATIONS

**Maximum seasonal use rate:** Refer to **Table 4, Crop-Specific Restrictions and Limitations** for crop-specific maximum seasonal use rates. Do not exceed 64 fluid ounces of this product (2 pounds acid equivalent) per acre, per year.

**Preharvest Interval (PHI):** Refer to the **CROP-SPECIFIC INFORMATION** section for preharvest intervals.

**Restricted-Entry Interval (REI):** 24 hours

**Crop Rotational Restrictions:** The interval between application and planting rotational crop is given below. Always exclude counting days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

**Planting/replanting restrictions for this product's applications of 24 fluid ounces per acre or less:** No rotational cropping restrictions apply at 120 days or more following application. Additionally, for annual crop uses in this label including corn, cotton, sorghum, and soybean, follow the preplant use directions in the **CROP-SPECIFIC INFORMATION** section. For barley, oat, wheat, and other grass seedings, the interval between application and planting is 15 days per 8 fluid ounces per acre applied east of the Mississippi River and 22 days per 8 fluid ounces per acre west of the Mississippi River.

**Planting/replanting restrictions for applications of more than 24 fluid ounces and up to 64 fluid ounces of this product per acre:** Corn, sorghum, cotton (east of the Rocky Mountains) and all other crops grown in areas with 30" or more of annual rainfall may be planted 120 days or more after application. Barley, oat, wheat, and other grass seedings, may be planted if the interval from application to planting is 30 days per 16 fluid ounces per acre east of the Mississippi River and 45 days per 16 fluid ounces per acre west of the Mississippi River. For all other crops in areas with less than 30" of annual rainfall, the interval between application and planting is 180 days or more.

**Rainfast period:** Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

**Stress:** Do not apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, insects, or widely fluctuating temperatures as injury may result.

Do not apply through any type of irrigation equipment. Do not treat irrigation ditches or water used for crop irrigation or domestic purposes.

TABLE 4

CROP-SPECIFIC RESTRICTIONS AND LIMITATIONS<sup>1</sup>

Crop	Maximum Rate Per Acre Per Application (fl. oz.)	Maximum In-Crop Rate Per Acre Per Season (fl. oz.)	Livestock Grazing or Feeding	Aircraft Application Allowed
Asparagus	16	16	Yes	Yes
Barley: Fall Spring	8 8	12 11	Yes	Yes
Corn	16	24	Yes <sup>2</sup>	Yes
Cotton	8	8	Yes	Yes
Fallow Ground	64	64	Yes	Yes
Grass grown for seed	64	64	Yes	Yes
Proso Millet	4	4	Yes	Yes
Pastureland	32	32	Yes	Yes
Conservation Reserve Program (CRP)	64	64	Yes	Yes
Oats	4	4	Yes	Yes
Sorghum	8	16	Yes	Yes
Soybean	64	64	Yes	Yes
Sugarcane	64	64	Yes	Yes
Turf	32	32	Yes	Yes
Triticale	4	4	Yes	Yes
Wheat	8	16	Yes	Yes

1. Refer to the CROP-SPECIFIC INFORMATION section for more details.

2. Once the crop reaches the ensilage (milk) stage or later in maturity.

CROP-SPECIFIC INFORMATION

ASPARAGUS

Apply this product to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

**Rates:** Apply 8 - 16 fluid ounces of this product to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed, (carelessweed).

Apply 16 fluid ounces of this product to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Multiple applications may be made per growing season. Do not exceed a total of 16 fluid ounces of this product per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

Do not use in the Coachella Valley of California.

Asparagus Tank Mixes

Apply 8 - 16 fluid ounces of this product with glyphosate (Roundup® Ultra herbicide) or 2,4-D to improve control of Canada thistle and field bindweed.



**BETWEEN CROP APPLICATIONS**

**Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) For Broadleaf Weed Control:** This product can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply this product as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See **Crop-Rotational Restrictions** in the **RESTRICTIONS AND LIMITATIONS** section for the recommended interval between application and planting to prevent crop injury.

**Rates and Timings:** Apply 4 - 64 fluid ounces of this product per acre. Refer to **Table 2** to determine use rates for specific targeted weed species. For best performance, apply this product when annual weeds are less than 6" tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if this product is applied when the majority of weeds have at least 4" - 6" of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for this product. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of this product, refer to the small grain section for details.

**Between Crop Tank Mixes**

In tank mixes with one or more of the following herbicides, apply 4 - 16 fluid ounces of this product per acre for control of annual weeds, or 16 - 64 fluid ounces of this product per acre for control of biennial and perennial weeds:

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| Ally® (Nufarm Purestand®)          | Gramoxone® Extra                  |
| Amber®                             | Kerb®                             |
| Atrazine                           | Landmaster® BW                    |
| Curtail® (Nufarm Cutback®)         | Paramount®                        |
| Cyclone®                           | Sencor®                           |
| Fallow Master®                     | Tordon® 22K (Nufarm Trooper™ 22K) |
| Finesse®                           | Touchdown®                        |
| Glyphosate® (Nufarm Credit® Extra) | 2,4-D                             |

**CORN (FIELD, POP, SEED, AND SILAGE)**

Direct contact of this product with corn seed must be avoided. If corn seeds are less than 1.5" below the soil surface, delay application until corn has emerged.

Applications of this product to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 - 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity. Up to 2 applications of this product may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply this product to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of this product on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5" tall and when applying this product alone or tank mixed with atrazine.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of this product made after corn emergence.

This product is not registered for use on sweet corn.

**Preplant and Preemergence Application in No Tillage Corn**

**Rates:** Apply 16 fluid ounces of this product per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 8 fluid ounces of this product per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

**Timing:** This product can be applied to emerged weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g. alfalfa or clover), apply this product after 4" - 6" of regrowth has occurred.

**Preemergence Application In Conventional Or Reduced Tillage Corn**

**Rates:** Apply 16 fluid ounces of this product per treated acre to medium- or fine-textured soils that contain 2.5% organic matter or more. Do not apply to coarse-textured soils (sand, loamy sand, or sandy loam) or any soil with less than 2.5% organic matter until after corn emergence (see **Early Postemergence** uses below).

**Timing:** This product may be applied after planting and prior to corn emergence. Preemergence application of this product does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if the application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g. drags, harrows) that concentrate treated soil over seed furrow, as seed damage

could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

**Early Postemergence Application in All Tillage Systems**

**Rates:** Apply 16 fluid ounces of this product per treated acre. Reduce the rate to 8 fluid ounces of this product per treated acre for corn grown on coarse-textured soils (sand, loamy sand, and sandy loam).

**Timing:** Apply between corn emergence and the 5-leaf stage or 8" tall, whichever occurs first. Refer to **Late Postemergence Application** if the sixth true leaf is emerging from whorl or the corn is greater than 8" tall.

**Late Postemergence Application**

**Rate:** Apply 8 fluid ounces of this product per treated acre.

**Timing:** Apply this product from 8 - 36" tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3" tall.

Apply directed spray when corn leaves prevent proper spray coverage, sensitive crops are growing nearby, or tank mixing with 2,4-D. Do not apply this product when soybeans are growing nearby if any of these conditions exist:

- Corn is more than 24" tall
- Soybean are more than 10" tall
- Soybean have begun to bloom

**Corn Tank Mixes or Sequential Uses**

When using tank mix or sequential applications with this product, always follow the companion product label to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products.

Apply this product prior to, in tank mix with, or after one or more of the following herbicides:

- |  |  |
|--|--|
| Accent® <sup>1</sup>                     | Harness® Xtra                            |
| Atrazine                                 | Hornet™ <sup>1</sup>                     |
| Axiom™                                   | Laddok® S-12                             |
| Banvel® (Nufarm Diablo®) <sup>1</sup>    | Lasso®                                   |
| Beacon® <sup>1</sup>                     | Liberty® <sup>3</sup>                    |
| Bicep®                                   | Lightning® <sup>5</sup>                  |
| Bladex®                                  | Marksman® <sup>1</sup>                   |
| Bullet®                                  | Outlook®                                 |
| Clarity® (Nufarm NUP-08038) <sup>1</sup> | Permit® <sup>1</sup>                     |
| Degree™                                  | Princep®                                 |
| Degree Xtra™                             | Prowl®                                   |
| DoublePlay® <sup>2</sup>                 | Python™                                  |
| Dual Magnum™                             | (Nufarm Credit® / Credit® Extra)         |
| Dual II Magnum®                          | Spirit™ <sup>1</sup>                     |
| Eradicane®                               | Stinger® (Nufarm Garrison®) <sup>1</sup> |
| Exceed® <sup>1</sup>                     | Surpass®                                 |
| Extrazine® II                            | Sutan® + <sup>2</sup>                    |
| Field Master®                            | TopNotch™                                |
| Frontier®                                | Touchdown®                               |
| FulTime®                                 | Tough®                                   |
| Gramoxone® Extra                         | 2,4-D <sup>1</sup>                       |
| Guardsman®                               |  |
| Harness®                                 |  |

1 See **Table 5, Specific Guidelines for Tank Mixes or Sequential Use Programs** for additional limitations or restrictions that apply for tank mix or sequential use programs with these products.  
 2 Sequential use only.  
 3 Use only on Liberty Link® (glufosinate tolerant) corn hybrids.  
 4 Includes postemergence use on Roundup Ready® (glyphosate tolerant) corn hybrids.  
 5 Use only Clearfield® (imidazolinone tolerant) corn hybrids.

**TABLE 5  
SPECIFIC GUIDELINES FOR TANK MIXES OR SEQUENTIAL USE PROGRAMS**

Tank Mix Partner	Rate Per Acre
Accent® or Beacon®	When tank mixing, applications immediately following extreme day or night temperature fluctuations or applications when daytime temperatures do not exceed 50° F may result in decreased weed control or crop injury. Delay application until the temperatures warm and both weeds and crop resume normal growth.
2,4-D	To provide maximum crop safety after corn emergence, use this tank mix only after corn is greater than 8" tall and when application can be made with drop pipes that direct spray beneath corn leaves and away from the whorl of the corn. The maximum rate of 2,4-D recommended in this tank mix is 0.25 pints per acre (0.125 pounds of acid equivalent per acre).
Banvel® (Nufarm Diablo®), Clarity® (Nufarm NUP-08038) or Marksman® herbicide	Tank mixes with these products that contain dicamba must not exceed a total combined rate of 0.50 pounds of dicamba acid equivalent per acre (0.25 pound on coarse-textured soils or on any soil when corn is greater than 8" tall). Sequential applications of these products must be separated by a minimum of 2 weeks (unless the combined rate is less than 0.5 pounds of dicamba acid equivalent and corn is 8" tall or less) and must not exceed a combined total of 0.75 pounds dicamba acid equivalent per acre for in-crop use.
Exceed®, Spirit™, Stinger® (Nufarm Garrison®), Hornet™ or Permit®	For improved control of velvetleaf, tank mix 0.25 - 0.5 ounce of Exceed, 0.5 ounce of Spirit, or 0.17 - 0.33 ounce Permit per acre with this product. For improved control of Canada thistle, Stinger at 1.5 - 3 fluid ounces per acre or Hornet at 0.6 - 1.2 ounces per acre may be tank mixed with this product. Use the higher rate in the range for heavier infestations of these weeds.

**COTTON**

**Preplant Application:** Apply up to 8 fluid ounces of this product per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply this product when weeds are in the 2 - 4 leaf stage and rosettes are less than 2" across.

Following application of this product and a minimum accumulation of 1" of rainfall or overhead irrigation, a waiting interval of 21 days is required per 8 fluid ounces per acre or less. These intervals must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make preplant applications of this product to cotton in geographic areas with average annual rainfall less than 25".

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

**Cotton Tank Mixes**

For control of grasses or additional broadleaf weeds, this product may be tank mixed with Bladex®, Caparol®, Gramoxone® Extra, and Nufarm Credit® or Nufarm Credit® Extra herbicides.

**GRASS GROWN FOR SEED**

Apply 8 - 16 fluid ounces of this product per treated acre on seedling grass after the crop reaches the 3 - 5 leaf stage. Apply up to 64 fluid ounces of this product on well-established perennial grass. For best performance, apply this product when weeds are in the 2 - 4 leaf stage and rosettes are less than 2" across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 64 fluid ounces of this product per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply this product after the grass seed crop begins to joint.

Refer to the **PASTURE, HAY, RANGELAND, AND GENERAL FARMSTEAD** section for grazing and feeding restrictions.

**Grass Seed Tank Mixes**

This product may be applied in tank mixes with one or more of the following herbicides:

- Buctril® (Nufarm Maestro®)
- Curtail® (Nufarm Cutback®)
- Express® (Nufarm Victory™)
- Karmex®
- MCPA amine
- Sencorr®
- Stinger® (Nufarm Garrison®)
- 2,4-D amine or ester

**PROSO MILLIT**

For use only within Colorado, Nebraska, North Dakota, South Dakota, and Wyoming.

This product combined with 2,4-D will provide control or suppression of the annual broadleaf weeds listed in Table 1.

Apply 4 ounces of this product with 0.375 pounds a.i. of 2,4-D. Apply the tank mix of this product + 2,4-D as a broadcast or spot treatment to emerged and actively growing weeds and when proso millet is in the 2 - 5 leaf stage. Use directions for 2,4-D products vary with manufacturers. Refer to a 2,4-D product with labeling consistent with the crop stage timing for this product. Some types of proso millet may be affected adversely by a tank mix of this product + 2,4-D.

Do not apply unless possible proso millet crop injury will be acceptable.

Restrictions for proso millet that is grazed or cut for hay are indicated in Table 9, **Timing Restrictions for Lactating Dairy Animals Following Treatment in the PASTURE, HAY, RANGELAND, AND GENERAL FARMSTEAD** section of this label.

**SMALL GRAINS NOT UNDERSEEDED TO LEGUMES (Fall- and Spring-Seeded Barley, Oat, Triticale and Wheat)**

Combinations with listed tank mix partners will provide control or suppression of the annual broadleaf weeds listed in Table 1. For improved control of listed weeds, tank mix this product with one or more of the herbicides listed. This product used in a tank mix with other herbicides offers the best spectrum of weed control and herbicide tolerant or resistant weed management. Refer to the specific crop section for this product's application rate and timing.

For applications prior to weed emergence or when sulfonylurea-resistant weeds are present or suspected, tank mix a minimum of 3 fluid ounces of this product per treated acre with a non-sulfonylurea herbicide such as 2,4-D or MCPA. Tank mixing this product with these products will offer more consistent control of sulfonylurea-resistant weeds.

**Additives:** When tank mixing this product with sulfonylurea herbicides (Ally® (Nufarm Purestand®), Amber®, Canvas®, Express® (Nufarm Victory™), Finesse®, Glean®, Harmony® Extra (Nufarm Treaty™ Extra), and Peak®), use 1 - 4 pints of an agriculturally approved surfactant (containing at least 80% active ingredient) per 100 gallons of spray or not more than 0.25 - 0.5% by volume. Use the highest rate of surfactant when using the lower rate ranges of the tank mix or when treating more mature and difficult to control weeds or dense vegetative growth.

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 3 - 4 fluid ounces of this product per acre.

**Timings:** Apply this product before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply this product when weeds are in the 2 - 3 leaf stage and rosettes are less than 2" across. Applying this product to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Applications to small grains may be made with aerial applications with 1 gallon of water or more per acre. Where dense foliage is present, 2 - 3 gallons of water per acre should be used.

Restrictions for small grain areas that are grazed or cut for hay are indicated in Table 9 in the **PASTURE, HAY, RANGELAND, AND GENERAL FARMSTEAD** section of this label.

**SMALL GRAINS: BARLEY (Fall- and Spring-Seeded)**

**Early Season Applications:** Apply 2 - 4 fluid ounces of this product to fall-seeded barley prior to the jointing stage. Apply 2 - 3 fluid ounces of this product before spring-seeded barley exceeds the 4-leaf stage.

**Note:** For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Do not tank mix this product with 2,4-D in early season applications on spring-seeded barley.

**Preharvest Applications:** This product can be used to control weeds that may interfere with harvest of fall- and spring-seeded barley. Apply 8 fluid ounces of this product per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

A waiting interval of 7 days is required before harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

For control of additional broadleaf weeds or grasses, this product may be tank mixed with other herbicides, such as 2,4-D, that are labeled for preharvest uses in barley.

Do not make preharvest applications in California.

## Barley Tank Mixes

Table 7.

Tank Mix Partner	Rate Per Acre
Amber®	0.14 - 0.28 ounce <sup>1</sup>
Ally® (Nufarm Purestand®)	0.05 - 0.1 ounce <sup>1</sup>
Bronate® (Nufarm Maestro® MA)	0.75 - 1.5 pints
Buctril® (Nufarm Maestro®)	1 - 1.5 pints
Canvas®	0.2 - 0.4 ounce <sup>1</sup>
Express® (Nufarm Victory™)	0.083 - 0.167 ounce <sup>1</sup>
Finesse®	0.167 - 0.33 ounce <sup>1</sup>
Glean®	0.167 ounce <sup>1</sup>
Harmony® Extra (Nufarm Treaty™ Extra)	0.167 - 0.33 ounce <sup>1</sup>
MCPA amine or ester	8 - 12 fluid ounces <sup>2</sup> (0.25 - 0.375 pound a.e.)
Metribuzin (Sencor®, Lexone®)	0.125 - 0.47 pound a.i.
2,4-D amine or ester <sup>2,3</sup>	8 fluid ounces (0.25 pound a.e.)

- 1 Do not use low rates of sulfonylureas (Ally (Nufarm Purestand®), Amber, Canvas, Express (Nufarm Victory™), Finesse, Glean, and Harmony Extra (Nufarm Treaty™ Extra) on more mature weeds or on dense vegetative growth.
- 2 When using formulations other than 4 pounds per gallon use pounds of a.e. per acre listed.
- 3 This tank mix is for fall-seeded barley only.

## SMALL GRAINS: OAT (Fall- and Spring-Seeded)

**Early Season Applications:** Apply 2 - 4 fluid ounces of this product per acre to fall-seeded oat prior to the jointing stage. Apply 2 - 4 fluid ounces of this product before spring-seeded oat exceeds the 5-leaf stage.

This product may be tank mixed with MCPA amine or ester for applications in oat.

Do not tank mix this product with 2,4-D in oat.

## SMALL GRAINS: TRITICATE (Fall- and Spring-Seeded)

**Early Season Applications:** Apply 2 - 4 fluid ounces of this product to triticale. Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

**Triticale Tank Mixes:** For best performance, this product should be used in tank mix combination with bromoxynil (Buctril, Moxy™ 2E) herbicide.

## SMALL GRAINS: WHEAT (Fall- and Spring-Seeded)

**Early Season Applications:** Apply 2 - 4 fluid ounces of this product to wheat unless using one of the fall-seeded wheat specific programs below. Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

To improve control of Russian thistle, flixweed, gromwell, or mayweed, add 2,4-D amine or ester to a tank mix with one of the following herbicides: Ally®, Amber®, Canvas®, Express®, Finesse®, Glean®, Harmony Extra, or Peak®.

**Specific Use Programs for Fall-Seeded Wheat Only:** This product may be used at 6 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only. In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 8 fluid ounces of this product may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze. This product may be tank mixed with 2,4-D amine at 8 fluid ounces after wheat begins to tiller. Periods of extended stress such as cold and wet weather may enhance the possibility of crop injury. For fall applications only, do not use if the potential for crop injury is not acceptable.

**Preharvest Applications:** This product can be used to control weeds that may interfere with harvest of wheat. Apply 8 fluid ounces this product per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

A waiting interval of 7 days is required before harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

For control of additional broadleaf weeds or grasses, this product may be tank mixed with other herbicides such as Ally, Roundup® Ultra, and 2,4-D.

Do not make preharvest applications in California.

### Wheat Tank Mixes

Table 8.

Tank Mix Partner	Rate Per Acre
Ally® (Nufarm Purestand®)	0.05 - 0.1 ounce <sup>1</sup>
Amber®	0.14 - 0.28 ounce <sup>1</sup>
Bronate® (Nufarm Maestro® MA)	0.75 - 1.5 pints
Buctril® (Nufarm Maestro®)	1 - 1.5 pints
Canvas®	0.2 - 0.4 ounce <sup>1</sup>
Curtail® (Nufarm Cutback®)	2 - 2.67 pints
Dakota® <sup>2</sup>	16 fluid ounces
Express® (Nufarm Victory™)	0.083 - 0.167 ounce <sup>1</sup>
Finesse®	0.167 - 0.33 ounce <sup>1</sup>
Glean®	0.167 ounce <sup>1</sup>
Harmony® Extra (Nufarm Treaty™ Extra)	0.167 - 0.33 ounce <sup>1</sup>
Karmex® <sup>3</sup>	0.5 - 1.5 pounds
Glyphosate (Nufarm Credit®, Credit® Extra)) <sup>4</sup>	12 - 16 fluid ounces
MCPA amine or ester <sup>5</sup>	8 - 12 fluid ounces (0.25 - 0.375 pound a.e.)
Metribuzin <sup>3</sup> (Sencor®, Lexone®)	0.25 - 0.375 pound a.i.
Peak® <sup>1</sup>	0.25 - 0.38 ounce
Stinger® (Nufarm Garrison®)	4 - 5.33 fluid ounces
Tiller® <sup>2</sup>	1 - 1.7 pints
2,4-D amine or ester <sup>5</sup>	8 - 12 fluid ounces (0.25 - 0.375 pound a.e.)

- 1 Do not use low rates of sulfonylurea herbicides, such as Ally (Nufarm Purestand®), Amber, Canvas, Express (Nufarm Victory™), Finesse, Glean, Harmony Extra (Nufarm Treaty™ Extra), and Peak on more mature weeds or on dense vegetative growth.
- 2 Do not use as a tank mix treatment with Dakota or Tiller on Durum wheat. Do not tank mix with Tiller if wild oat is the target weed.
- 3 Tank mixes with Karmex and metribuzin are for use in fall-seeded wheat only.
- 4 A tank mix of up to 4 fluid ounces of this product with Roundup Ultra RT or any glyphosate formulation labeled for use as a preplant application to small grains may be applied with no waiting period prior to planting.
- 5 Up to 32 fluid ounces of (1.0 pound a.e.) may be used on fall-seeded wheat if crop injury is acceptable. When using formulations other than 4 pounds per gallon, use the pounds of a.e. per acre listed.

## SORGHUM

This product may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to the **PASTURE, HAY, RANGELAND, AND GENERAL FARMSTEAD** section of this label for specific grazing and feeding restrictions.

Do not apply this product to sorghum grown for seed production.

**Preplant Application:** Up to 8 fluid ounces of this product may be applied per acre if applied at least 15 days before sorghum planting.

**Postemergence Application:** Up to 8 fluid ounces of this product per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15" tall. For best performance, apply this product when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3" tall). Use drop pipes (drop nozzles) if sorghum is taller than 8". Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying this product to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days.

**Preharvest Uses in Texas and Oklahoma Only:** Up to 8 fluid ounces of this product per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance. For aerial applications, use at least 2 gallons of water-based carrier per treated acre. Delay harvest until 30 days after a preharvest treatment.

**Split Application:** This product may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 8 fluid ounces per acre, per application or a total of 16 ounces per acre, per season.

### Sorghum Tank Mixes and Sequential Treatment

This product may be applied prior to, in a tank mix with, or after one or more of the following herbicides:

Atrazine	Laddok®S-12
Basagran®	Landmaster®
Bicep II Magnum®	Lasso®
Buctril® (Nufarm Maestro®)	Outlook®
Cyclone®	Paramount®
Dual Magnum™	Peak®
Dual II Magnum®	Permit®
Fallow Master®	Ramrod®
Frontier®	(Nufarm Credit® Extra)
Gramoxone® Extra	
Guardman®	

## SOYBEAN

**Preplant Applications:** Apply 4 - 16 fluid ounces of this product per acre to control emerged broadleaf weeds prior to planting soybeans.

Do not exceed 16 fluid ounces of this product per acre in a spring application prior to planting soybeans.

Following application of this product and a minimum accumulation of 1" rainfall or overhead irrigation, a waiting interval of 14 days is required for 8 fluid ounces per acre or less, and 28 days for 16 fluid ounces per acre. These intervals must be observed prior to planting soybeans or crop injury may occur.

Do not preplant applications of this product to soybeans in geographic areas with average annual rainfall less than 25".

**Preharvest Applications:** This product can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Table 1**). Apply 8 - 64 fluid ounces of this product per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Soybeans may be harvested 14 days or more after a pre-harvest application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for this product. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of this product.

Do not make preharvest applications in California.

### Soybean Tank Mixes

**Preplant Tank Mixes:** This product may be tank mixed with other herbicides registered for early preplant use in soybeans including burndown herbicides such as glyphosate ( Nufarm Credit® / Credit® Extra) and 2,4-D or residual herbicides such as Outlook®, Frontier® or Dual Magnum™.

**Preharvest Tank Mixes:** This product may be tank mixed with other herbicides registered for preharvest use in soybeans such as glyphosate (Nufarm Credit® Extra) and Gramoxone® Extra.

### SUGARCANE

Apply this product for control of annual, biennial, or perennial broadleaf weeds listed in **Table 1**. Apply 8 - 24 fluid ounces of this product per acre for control of annual weeds, 16 - 32 fluid ounces for control of biennial weeds, and 32 - 64 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

Retreatments may be made as needed; however, do not exceed a total of 64 fluid ounces of this product per treated acre during a growing season.

**Timing:** This product may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 32 - 64 fluid ounces of this product per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

### Sugarcane Tank Mixes

This product may be tank mixed with other products registered for use in sugarcane such as Asulox®, atrazine, Evik®, and 2,4-D.

### PASTURE, HAY, RANGELAND, AND GENERAL FARMSTEAD (Noncropland)

This product is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditchbanks) for control or suppression of broadleaf weed and brush species listed in **Table 1**.

This product may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

Uses described in this section also pertain to small grains (forage sorghum, rye, sudangrass, or wheat) grown for pasture use only. Some perennial weeds may be controlled with lower rates of either this product or this product plus 2,4-D (refer to **Table 2**).

**Rates and Timings:** Refer to **Table 2** for rate selection based on targeted weed or brush species. Some weed species will require tank mixes for adequate control.

Rates above 32 fluid ounces of this product per acre are for spot treatments only. Do not broadcast apply more than 32 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 32 fluid ounces of this product per treated acre during a growing season.

**Crop-Specific Restrictions and Limitations:** Do not apply more than 16 fluid ounces of this product per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 16 fluid ounces of this product is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustinegrass may be injured if more than 16 fluid ounces of this product is applied per acre. Usually colonial bentgrasses are more tolerant than creeping types. Velvetgrasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

**Table 9** lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.



**TABLE 9  
TIMING RESTRICTIONS FOR LACTATING DAIRY ANIMALS FOLLOWING TREATMENT**

Rate per Treated Acre (pints)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 1	7	37
Up to 2	21	51
Up to 4	40	70

This product can be applied using water, oil in water emulsions including invert systems, or sprayable fluid fertilizer as a carrier (refer to the **COMPATIBILITY TEST FOR MIX COMPONENTS** section).

To prepare oil in water emulsions, half-fill spray tank with water, then add the appropriate amount of emulsifier. With continuous agitation, slowly add the herbicide and then the oil (such as diesel oil or fuel oil) or a premix of oil plus additional emulsifier to spray tank. Complete filling of spray tank with water. Maintain vigorous agitation during spray operation to prevent oil and water from forming separate layers. This product may be applied broadcast using either ground or aerial application equipment.

**Aerial Application**

- **Spray Volume:** Use 2 - 40 gallons of diluted spray per treated acre in a water-based carrier.

**Ground Application**

- **Spray Volume:** Use 3 - 600 gallons of diluted spray per treated acre. The volume of spray applied will depend on the height, density, and type of weeds or brush being treated and on the type of equipment being used.
- **Spot Treatments:** This product may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

**CUT SURFACE TREATMENT**

This product may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

**Rate:** Mix 1 part of this product with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments:** Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

**Note:** For more rapid foliar effects, 2,4-D may be added to the solution.

**APPLICATION FOR CONTROL OF DORMANT MULTIFLORA ROSE**

This product can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of this product should be applied directly to the soil as close as possible to the root crown but within 6 - 8" of the crown. On sloping terrain, apply this product to the uphill side of the crown. Do not apply when snow or water prevents applying this product directly to the soil. The use rate of this product depends on the canopy diameter of the multiflora rose.
- **Examples:** Use 0.25, 1.0, or 2.35 fluid ounces of this product respectively, for 5, 10, or 15 feet canopy diameters.
- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply this product to the basal stem region from the ground line to a height of 12 - 18". Spray until runoff, with special emphasis on covering the root crown. For best results, apply this product when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying this product to the ground line.

To prepare approximately 2 gallons of a Lo-Oil spray solution:

1. Combine 1.5 gallons of water, 1 ounce of emulsifier, 16 fluid ounces of this product, and 2.5 pints of No. 2 diesel fuel.
2. Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

Do not exceed 8 gallons of spray solution mix applied per acre, per year.

**Pasture Tank Mixes**

This product may be applied in tank mixes with one or more of the following herbicides:

- |                            |  |
|----------------------------|--|
| Ally® (Nufarm Purestand®)  | Gramoxone® Extra                                   |
| Amber®                     | Roundup Ultra® RT (Nufarm Credit® / Credit® Extra) |
| Crossbow® (Nufarm Candor™) | Stinger® (Nufarm Garrison®)                        |
| Curtail® (Nufarm Cutback®) | Tordon® 22K (Nufarm Trooper™ 22K)                  |
| Garlon® (Nufarm Tahoe®)    | 2,4-D  |

**CONSERVATION RESERVE PROGRAM (CRP)**

This product is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of this product will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

**Newly Seeded Areas:** This product may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudangrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of this product greater than 16 fluid ounces per treated acre may severely injure newly seeded grasses. Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 16 fluid ounces of this product applied per treated acre west of the Mississippi River or 20 days per 16 fluid ounces applied east of the Mississippi River.

**Established Grass Stands:** Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 16 fluid ounces of this product per treated acre.

When applied at recommended rates, this product will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

**Rates and Timings:** Apply 4 - 64 fluid ounces of this product per acre. Refer to **Table 2** for rates based on target weed species. This product may be tank mixed or applied sequentially with other products labeled for use in Conservation Reserve Programs such as atrazine, Cyclone®, glyphosate (Roundup Ultra®), Gramoxone® Extra, Touchdown®, or 2,4-D.

Retreatments may be made as needed; however, do not exceed a total of 64 fluid ounces (4 pints) of this product per acre.

**RIGHTS-OF-WAY, UTILITY, INDUSTRIAL AREAS, FENCEROWS AND OTHER NONCROP AREAS**

This product is recommended for use on general farmstead weed and brush control and for use on noncrop land areas such as rights of-way (such as roadways, rest areas, utility, railroad, highway, pipeline, and rights-of-way that run through pasture and rangeland); utility facilities (such as substations, pipelines, tankfarms, pumping stations, parking and storage areas, fencerows and non-irrigated ditchbanks); brush control for forest site preparation or maintenance, conservation lands including natural areas, wildlife openings and other conservation lands.

Observe all Precautions on this label. Read and follow the Mixing and Application section.

**General Farmstead**

This product can be used on or around farms and farmstead for control of many broadleaf weeds and brush in noncrop land areas only.

**Rights-of-Way**

This product can be used to control many broadleaf weeds on rights-of-way. This use includes applications to roadside, roadway and highways; to areas along utilities such as cable and powerlines; railroad track and embankment; highways, highway medians, bridge abutments, pipelines, and rights-of-way that run through pasture and rangeland. Use controlled application techniques that minimize the risk of off-target movement.

**Utility and Industrial Areas**

This product can be used to control many broadleaf weeds and brush in noncrop areas on or surrounding substations, pipelines, tankfarms, pump stations, production facilities, and bareground situations. It may also be used on parking and storage areas (refer to Best Stewardship Practices to avoid direct runoff from impervious surfaces).

**Fencerows**

This product can be used to control many broadleaf weeds and brush in fencerows.

**Mixing and Application**

Read and observe Management of Off-Site Movement recommendations in this label. This product can be applied using water, oil in water emulsions including invert systems, or, sprayable fluid fertilizer as a carrier. A compatibility test (see Compatibility Test section) should be made prior to tank mixing.

To prepare oil in water emulsions, half-fill spray tank with water, then add the appropriate amount of emulsifier. With continuous agitation, slowly add the herbicide and then the herbicidal oil or a pre-mix of oil plus additional emulsifier to spray tank. Complete filling of spray tank with water. Maintain vigorous agitation during spray operation to prevent oil and water from forming separate layers.

This product may be applied broadcast using either ground or aerial application equipment. When using ground equipment, apply low or high volume sprays between 3 to 600 gals. of diluted spray per treated acre. Volume of spray applied will depend on the height, density, and type of weeds or brush being treated and on the type of equipment being used. When using aerial equipment, apply 5 to 40 gals. of diluted spray per treated acre.

This product may be applied to individual clumps or small areas (spot treatment) of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

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Herbicide adjuvants or other spray additives (emulsifiers, spreader stickers, surfactants, wetting agents, drift control agents, or penetrants) may be used for wetting, penetration, or drift control. Spray additives must be agriculturally approved when used in pasture applications. If spray additives are used, read and follow all use recommendations and precautions on product label.

**Weeds and Brush Controlled**

When applied at recommended rates, will give control of many annual, biennial, and perennial broadleaf weeds, and many woody brush and vine species commonly found in noncrop-land areas. (Refer to General Weed List.) Noted (\*) perennial weeds may be controlled with lower rates of either this product or this product plus tank mix combinations. See **RATES AND TIMING** below.

**Table 10: RATES AND TIMING**

Application rates and timings of this product are given below. Use the higher level of listed rate ranges when treating dense or tall vegetative growth.

Weed Stage and Type	Amount of Product (Pints Per Acre)	Gallons of Spray Mixture Per Acre*	Spray Concentration for Use with Low Volume Application**** (%vol/vol)
<b>Annual</b>			
Small, Actively Growing	1/2 to 1	25 to 50	3
Established Weed Growth	1 to 1-1/2	50 to 75	3
<b>Biennial* - Rosette diameter</b>			
Less than 3"	1/2 to 1	25 to 50	3 to 4
3" or more	1 to 2.	50 to 100	3 to 4
Bolting	2 to 3.	100 to 150	3 to 4
<b>Perennial</b>			
Suppression or top growth control	1/2 to 1	50 to 100	4
Noted ( *) Perennials	2 to 4	100 to 200	4
Other Perennials	4	200	5
<b>Woody Brush and Vines***</b>			
Top Growth	1/2 to 4	50 to 200	5
Stems and Roots	4	200	5

\* For best performance, make application when biennial weeds are in the rosette stage.

\*\* Assuming typical application rate of 1 quart. of this product/100 gals.

\*\*\* Tank mixes may be required for optimal control. Refer to General Weed List.

\*\*\*\* Low volume rates must not exceed 4 pints. of this product maximum per acre per year (5% volume/volume = 10 gals. maximum solution per acre per year).

Retreatments may be made as needed; however, do not exceed a total of 4 pints. (2 lbs. a.i.) of this product per treated acre during a growing season.

**FOREST SITE PREPARATION**

**General Information**

This product may be used for control of undesirable conifers as well as many broadleaf weeds, vines, brambles, hardwood brush, and trees in forest site preparation. This product may be applied as broadcast foliar sprays from ground or aerial equipment. This product is absorbed through the leaf surfaces quickly after spraying and will also be absorbed from the soil by the roots. Translocation through the leaves, stems, and roots provides control of undesirable young conifer and broadleaf species. Woody plants, brush, and trees may not display the full extent of herbicide efficacy until several months following treatment. This product provides application flexibility for extended windows of application and tank mix options (refer to Mixing and Application Procedures and Tank Mix Options).

**Mixing and Application Instructions**

**Ground Operated Spray Equipment**

Thoroughly mix and apply the recommended amount of this product (2 quarts per acre maximum) in a minimum of 15 gals. of water per acre. Spray solution should uniformly cover undesirable foliage for best results. A suitable nonionic surfactant should be added to the spray solution to enhance foliage wetting, spreading, and solution absorption. Drift control and foam reducing agents may be added at recommended rates, if needed. Spray pattern indicator agents may also be added at recommended rates, if desired. DO NOT spray under windy or gusty conditions. Maintain proper buffer zone to ensure drift does not reach off-target vegetation.

**Aerial Spray Equipment**

Thoroughly mix the recommended amount of this product (2 quarts per acre maximum) in a minimum of 10 gals. of water per acre and uniformly apply with properly calibrated aerial equipment. A suitable nonionic surfactant should be added to the spray solution to enhance wetting, spreading, and solution absorption. All precautions should be taken to minimize or eliminate spray drift. Drift control and foam control agents may be added at recommended rates, if needed.

**Tank Mix Options**

For extended range of species control, tank mix this product with other forest site preparation products such as Arsenal, Razor®, Razor® Pro, Spyder™, Tahoe®, etc. Observe all precautions and restrictions on the product labels. Always follow the most restrictive label in a tank mix.

**TURF AND LAWNS**

Including Golf Course (Fairways, Aprons, Tees, and Rough), Parks, Recreational areas, Lawn care application, Sod farms.

**IMPORTANT:** Observe all Precautions on this label. Read and follow Mixing and Application Procedures.

Established grass stands growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. To avoid injury to newly seeded grasses, application of this product should be delayed until after second mowing. Furthermore, application rates in excess of 1 pint. (1/2 lb. a.i.) per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply in excess of 1/4 pint. (1/8 lb. a.i.) of this product per treated acre on coarse-textured (sandy-type) soils, or in excess of 1/2 pint. (1/4 lb. a.i.) per treated acre on fine-textured (clay-type) soils. Do not make repeat applications in these areas for 30 days and until previous applications of this product have been activated in the soil by rain or irrigation.

**Weeds Controlled**

When applied at recommended rates, will give control of many annual, biennial, and noted (\*) perennial broadleaf weeds commonly found in turf. This product will also give growth suppression of many other listed perennial broadleaf weeds and woody brush and vine species, refer to **Table 1**. Refer to **Table 2** or **Table 11** for rates based on targeted weed or brush species and growth stage. Some weed species will require tank mixes for adequate control.

**Mixing and Application**

Apply 30 to 200 gals. of diluted spray per treated acre (3 quarts. to 4-1/4 gals. on 1,000 sq. ft.), depending on density or height of weeds treated and on the type of equipment used.

**Rates and Timings**

Use the higher level of listed rate ranges when treating dense vegetative growth.

**Table 11: TURF AND LAWN BROADCAST APPLICATION RATES**

Weed Stage and Type	Pints Per Treated Acre	Pounds a.i. Per Treated Acre	Teaspoon Per 1,000 Square Feet
<b>Annual</b>			
Small, actively growing	1/2 to 1	1/4 to 1/2	1 to 2-1/4
Established weed growth	1 to 1-1/2	1/2 to 3/4	2-1/4 to 3-1/4
<b>Biennial* - Rosette diameter</b>			
Less than 3 inches	1/2 to 1	1/4 to 1/2	1 to 2-1/4
3 inches or more	1 to 2	1/2 to 1	2-1/4 to 4-1/2
<b>Perennial, Woody Brush and Vines</b>	1 to 2	1/2 to 1	2-1/4 to 4-1/2

\*For best performance, make application when biennial weeds are in the rosette stage.

For best performance, apply when weeds are emerged and actively growing.

Retreatments may be made as needed; however, do not exceed a total of 2 pints. (1 lb. a.i.) of this product per treated acre during a growing season.

**Tank Mix Treatments**

READ AND FOLLOW THE LABEL OF EACH TANK MIX PRODUCT USED FOR PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, APPLICATION RATES AND TIMINGS, AND OTHER RESTRICTIONS. Consult product labels for rate recommendations for tank mix partners. OBSERVE ALL PRECAUTIONS AND RESTRICTIONS ON THE PRODUCT LABELS. ALWAYS FOLLOW THE MOST RESTRICTIVE LABEL IN A TANK MIX.

Tank mix treatments of this product may be made with 2,4-D, MCPA, MCPP, Confront, or bromoxynil for control of additional weeds listed on the tank mix product label.

Apply 1/4 to 1/2 pint. (1/10 to 1/4 lb. a.i.) of this product per treated acre with 1/2 to 1-1/2 lbs. acid equivalent of 2,4-D, MCPA, or MCPP, or with 1 to 2 pints. of Confront, or with 3/8 to 1/2 lb. a.i. of bromoxynil. Use the higher level of the listed rate ranges when treating established weeds. Repeat treatments may be made as needed; however, do not exceed 2 pints. (1 lb. a.i.) of this product per treated acre during the growing season.

**PESTS IN THIS LABEL**

**Common Name**

**Annuals:**

Alkanet  
 Amaranth, Palmer  
     Powell  
     Spiny  
 Aster, Slender  
 Bedstraw, Catchweed  
 Beggarweed, Florida  
 Broomweed, Common  
 Buckwheat, Tartary  
     Wild  
 Buffalobur  
 Burclover, California  
 Burcucumber  
 Buttercup, Corn  
     Creeping  
     Roughseed  
     Western Field  
 Carpetweed  
 Catchfly, Nightflowering  
 Chamomile, Corn  
 Chervil, Bur  
 Chickweed, Common  
 Clovers  
 Cockle, Corn  
     Cow  
     White  
 Cocklebur, Common  
 Copperleaf, Hophornbeam  
 Cornflower (Bachelor Button)  
 Croton, Tropic  
     Woolly  
 Daisy, English  
 Dragonhead, American  
 Eveningprimrose, Cutleaf  
 Falseflax, Smallseed  
 Fleabane, Annual  
 Flixweed  
 Fumitory  
 Goosefoot, Nettleleaf  
 Hempnettle  
 Henbit  
 Jacob's Ladder  
 Jimsonweed  
 Knawel (German Moss)  
 Knotweed, Prostrate  
 Kochia  
 Ladysthumb  
 Lambsquarters, Common  
 Lettuce, Miners  
     Prickly  
 Mallow, Common  
     Venice  
 Marestalk (Horseweed)  
 Mayweed  
 Morningglory, Ivyleaf  
     Tall  
 Mustard, Black  
     Blue  
     Tansy  
     Treacle  
     Tumble  
     Wild  
 Nightshade, Black  
     Cutleaf

**Scientific Name**

*Lithospermum arvense*  
*Amaranthus palmeri*  
*Amaranthus powellii*  
*Amaranthus spinosus*  
*Aster subulatus*  
*Galium aparine*  
*Desmodium tortuosum*  
*Gutierrezia dracunculoides*  
*Fagopyrum tatarium*  
*Polygonum convolulus*  
*Solanum rostratum*  
*Medicago polymorpha*  
*Sicyos angulatus*  
*Ranunculus arvensis*  
*Ranunculus repens*  
*Ranunculus muricatus*  
*Ranunculus occidentalis*  
*Mullugo verticillata*  
*Silene noctiflora*  
*Anthemis arvensis*  
*Anthriscus caucalis*  
*Stellaria media*  
*Trifolium spp.*  
*Agrostemma githago*  
*Vaccaria pyramidata*  
*Melandrium album*  
*Xanthium strumarium*  
*Acalypha ostryifolia*  
*Centaurea cyanus*  
*Croton glandiola*  
*Croton capitatus*  
*Bellis perennis*  
*Dracocephalum parviflorum*  
*Oenothera laciniata*  
*Camelina microcarpa*  
*Erigeron annuus*  
*Descurainia sophia*  
*Fumaria officinalis*  
*Chenopodium murale*  
*Galeopsis tetrahit*  
*Lamium amplexicaule*  
*Polemonium caeruleum*  
*Datura stramonium*  
*Scleranthus annuus*  
*Polygonum aviculare*  
*Kochia scoparia*  
*Polygonum persicaria*  
*Chenopodium album*  
*Claytonia perfoliata*  
*Lactuca serriola*  
*Malva neglecta*  
*Hibiscus trionum*  
*Hippurus vulgaris*  
*Anthemis cotula*  
*Ipomea hederacea*  
*Ipomea purpurea*  
*Brassica nigra*  
*Chorispora tenella*  
*Descurainia pinnata*  
*Erysimum repandum*  
*Sisymbrium altissimum*  
*Sinapis arvensis*  
*Solanum nigrum*  
*Solanum triflorum*

**Common Name**

**Annuals (continued):**

Pennycress, Field (Farweed,  
 Frenchweed, Stinkweed)  
 Pepperweed, Virginia  
     (Peppergrass)  
 Pigweed, Prostrate  
     Redroot  
     (Carelessweed)  
     Smooth  
     Tumble  
 Pineappleweed  
 Poorjoe  
 Puncturevine  
 Purslane, Common  
 Pusley, Florida  
 Radish, Wild  
 Ragweed, Common  
     Giant (Buffaloweed)  
     Lance-Leaf  
 Ragwort, Tansy  
 Rocket, London  
     Yellow  
 Rubberweed, Bitter  
 Salsify  
 Sesbania, Hemp  
 Shepherdspurse  
 Sicklepod  
 Sida, Prickly (Teaweed)  
 Smartweed, Green  
     Pennsylvania  
 Sneezeweed, Bitter  
 Sowthistle, Annual  
     Spiny  
 Spikeweed, Common  
 Spurge, Prostrate  
 Spurry, Corn  
 Starbur, Bristly  
 Starwort, Little  
 Sumpweed, Rough  
 Sunflower, Common (Wild)  
 Thistle, Russian  
 Velvetleaf  
 Waterhemp, Common  
     Tall  
 Waterprimrose, Winged  
 Wormwood  
**Biennials:**  
 Burdock, Common  
 Carrot, Wild (Queen Anne's  
 Lace)  
 Cockle, White  
 Eveningprimrose, Common  
 Geranium, Carolina  
 Gromwell  
 Knapweed, Diffuse  
     Spotted  
 Mallow, Dwarf  
 Plantain, Bracted  
 Ragwort, Tansy  
 Starthistle, Yellow  
 Sweetclover  
 Teasel  
 Thistle, Bull  
     Musk  
     Plumeless

**Scientific Name**

*Thlaspi arvense*  
*Lepidium virginicum*  
*Amaranthus blitoides*  
*Amaranthus retroflexus*  
*Amaranthus hybridus*  
*Amaranthus albus*  
*Matricaria matricarioides*  
*Diodia teres*  
*Tribulus terrestris*  
*Portulaca oleracea*  
*Richardia scabra*  
*Raphanus raphanistrum*  
*Ambrosia artemisiifolia*  
*Ambrosia trifida*  
*Ambrosia bidentata*  
*Senecio jacobaea*  
*Sisymbrium irio*  
*Barbarea vulgaris*  
*Hymenoxys olerata*  
*Tragopogon porrifolius*  
*Sesbania exaltata*  
*Capsella bursa-pastoris*  
*Cassia obtusifolia*  
*Sida spinosa*  
*Polygonum scabrum*  
*Polygonum pennsylvanicum*  
*Helenium amurum*  
*Sonchus oleraceus*  
*Sonchus asper*  
*Hemizonia pungens*  
*Euphorbia humistrata*  
*Spergula arvensis*  
*Acanthospermum hispidum*  
*Stellaria graminea*  
*Iva ciliata*  
*Helianthus annuus*  
*Salsola iberica*  
*Abutilon theophrasti*  
*Amaranthus rudis*  
*Amaranthus tuberculatus*  
*Ludwigia decurrens*  
*Artemisia annua*  
  
*Arctium minus*  
*Daucus carota*  
  
*Melandrium album*  
*Oenothera biennis*  
*Geranium carolinianum*  
*Lithospermum spp.*  
*Centaurea diffusa*  
*Centaurea maculosa*  
*Malva borealis*  
*Plantago aristata*  
*Senecio jacobaea*  
*Centaurea solstitialis*  
*Melilotus spp.*  
*Dipsacus sativus*  
*Cirsium vulgare*  
*Carduus nutans*  
*Carduus acanthoides*

## PESTS IN THIS LABEL (continued)

Common Name	Scientific Name	Common Name	Scientific Name
<b>Perennials:</b>		<b>Woody Species:</b>	
Alfalfa	<i>Medicago sativa</i>	Alder	<i>Alnus</i> spp.
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>	Ash	<i>Fraxinus</i> spp.
Aster, Spiny	<i>Aster spinosus</i>	Aspen	<i>Populus</i> spp.
Whiteheath	<i>Aster pilosus</i>	Basswood	<i>Tilia americana</i>
Bedstraw, Smooth	<i>Gallium mollugo</i>	Beech	<i>Fagus</i> spp.
Bindweed, Field	<i>Convolvulus arvensis</i>	Birch	<i>Betula</i> spp.
Hedge	<i>Calystegia sepium</i>	Blackberry	<i>Rubus</i> spp.
Blueweed, Texas	<i>Helianthus ciliaris</i>	Blackgum	<i>Nyssa</i> spp.
Bursage, Woollyleaf,	<i>Ambrosia grayi</i>	Cedar	<i>Cedrus</i> spp.
(Bur Ragweed, Povertyweed)		Cherry	<i>Prunus</i> spp.
Buttercup, Tall	<i>Ranunculus acris</i>	Chinquapin	<i>Chrysolepis chrysophylla</i>
Campion, Bladder	<i>Silene vulgaris</i>	Cottonwood	<i>Populus deltoides</i>
Chickweed, Field	<i>Cerastium arvense</i>	Creosotebush	<i>Larrea tridentata</i>
Mouseear	<i>Cerastium vulgatum</i>	Cucumbertree	<i>Magnolia acuminata</i>
Chicory	<i>Cichorium intybus</i>	Dewberry	<i>Rubus caesius</i>
Clover, Hop	<i>Trifolium aureum</i>	Dogwood	<i>Corpus</i> spp.
Dandelion	<i>Taraxacum officinale</i>	Elm	<i>Ulmus</i> spp.
Dock, Broadleaf (Bitterdock)	<i>Rumex obtusifolius</i>	Grape	<i>Vitis</i> spp.
Curly	<i>Rumex crispus</i>	Hawthorn (Thornapple)	<i>Crataegus</i> spp.
Dogbane, Hemp	<i>Apocynum cannabinum</i>	Hemlock	<i>Tsuga</i> spp.
Dogfennel (Cypressweed)	<i>Eupatorium capillifolium</i>	Hickory	<i>Carya</i> spp.
Fern, Bracken	<i>Pteridium aquilinum</i>	Honeylocust	<i>Gleditsia triacanthos</i>
Garlic, Wild	<i>Allium vineale</i>	Honeysuckle	<i>Lonicera</i> spp.
Goldenrod, Canada	<i>Solidago canadensis</i>	Hornbeam	<i>Carpinus</i> spp.
Missouri	<i>Solidago missouriensis</i>	Huckleberry	<i>Vaccinium arboreum</i>
Goldenweed, Common	<i>Isocoma coronopifolia</i>	Huisache	<i>Acacia farnesiana</i>
Hawkweed	<i>Hieracium</i> spp.	Ivy, Poison	<i>Rhus radicans</i>
Henbane, Black	<i>Hyoscyamus niger</i>	Kudzu	<i>Pueraria lobata</i>
Horsenettle, Carolina	<i>Solanum carolinense</i>	Locust, Black	<i>Robinia pseudoacacia</i>
Ironweed	<i>Vernonia</i> spp.	Maple	<i>Acer</i> spp.
Knapweed, Black	<i>Centaurea nigra</i>	Mesquite	<i>Prosopis ruscifolia</i>
Russian	<i>Centaurea repens</i>	Oak	<i>Quercus</i> spp.
Milkweed, Common	<i>Asclepias syriaca</i>	Oak, Poison	<i>Rhus toxicodendron</i>
Honeyvine	<i>Ampelamus albidus</i>	Olive, Russian	<i>Eleaagnus angustifolia</i>
Western Whorled	<i>Asclepias subverticillata</i>	Persimmon, Eastern	<i>Diospyros virginiana</i>
Nettle, Stinging	<i>Urtica dioica</i>	Pine	<i>Pinus</i> spp.
Nightshade, Silverleaf (White	<i>Solanum elaeagnifolium</i>	Plum, Sand (Wild Plum)	<i>Prunus amygdalis</i>
Horsenettle)		Poplar	<i>Populus</i> spp.
Onion, Wild	<i>Allium canadense</i>	Rabbitbrush	<i>Chrysothamnus pulchellus</i>
Plantain, Broadleaf	<i>Plantago major</i>	Redcedar, Eastern	<i>Juniperus virginiana</i>
Buckhorn	<i>Plantago lanceolata</i>	Rose, McCartney	<i>Rosa bracteata</i>
Pokeweed	<i>Phytolacea americana</i>	Multiflora	<i>Rosa multiflorum</i>
Ragweed, Western	<i>Ambrosia psilostachya</i>	Sagebrush, Fringed	<i>Artemisia frigida</i>
Redvine	<i>Brunnichia ovata</i>	Sassafras	<i>Sassafras albidum</i>
Sericea Lespedeza	<i>Lespedeza cuneata</i>	Serviceberry	<i>Amelanchier sanguinea</i>
Smartweed, Swamp	<i>Polygonum coccineum</i>	Spicebush	<i>Lindera benzoin</i>
Snakeweed, Broom	<i>Gutierrezia sarothrae</i>	Spruce	<i>Picea</i> spp.
Sorrel, Red (Sheep Sorrel)	<i>Rumex acetosella</i>	Sumac	<i>Rhus</i> spp.
Sowthistle, Perennial	<i>Sonchus arvensis</i>	Sweetgum	<i>Liquidamber styraciflua</i>
Spurge, Leafy	<i>Euphorbia esula</i>	Sycamore	<i>Platanus occidentalis</i>
Sundrops	<i>Oenothera perrenis</i>	Tarbrush	<i>Flourensia cernua</i>
Thistle, Canada	<i>Cirsium arvense</i>	Willow	<i>Salix</i> spp.
Scotc	<i>Onopordum acanthium</i>	Witchhazel	<i>Hamamelis macrophylla</i>
Toadflax, Dalmatian	<i>Linaria genistrata</i>	Yaupon	<i>Ilex</i> spp.
Tropical Soda Apple	<i>Solanum viarum</i>	Yucca	<i>Yucca</i> spp.
Trumpet creeper (Buckvine)	<i>Campsis radicans</i>		
Vetch	<i>Vicia</i> spp.		
Waterhemlock, Spotted	<i>Cicuta maculata</i>		
Waterprimrose, Creeping	<i>Ludwigia peploides</i>		
Woodsorrel, Creeping	<i>Oxalis corniculata</i>		
Yellow	<i>Oxalis stricta</i>		
Wormwood Absinth	<i>Artemesia absinthium</i>		
Louisiana	<i>Artemesia ludoviciana</i>		
Yankeeeweed	<i>Eupatorium compositifolium</i>		
Yarrow, Common	<i>Achillea millefolium</i>		

**CROPS**

This product can be used on the following crops:

Asparagus  
 Corn  
 Cotton  
 Fallow Systems (Between Crop Applications)  
 Grass Grown for Seed  
 Proso Millet  
 Small Grains (Barley, Oat, Triticale and Wheat)  
 Sorghum  
 Soybean  
 Sugarcane  
 Conservation Reserve Program (CRP)  
 Pastures, Rangeland, General Farmstead  
 Rights-of-way, Utility, Industrial Areas, Fencerows, and Other Noncrop  
 Cut Surface Tree Treatments  
 Dormant Applications for Control of Multiflora Rose  
 Forest Site Preparation  
 Turf

Look inside for complete **RESTRICTIONS AND LIMITATIONS** and **APPLICATION INSTRUCTIONS**.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes.

**PESTICIDE STORAGE:** Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Store in original container in a well-ventilated area separately from fertilizer, feed, and foodstuffs. Avoid cross-contamination with other pesticides.

**PESTICIDE DISPOSAL:** Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility.

Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under Subtitle C of the Resource Conservation and Recovery Act. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law.

**CONTAINER DISPOSAL:**

**Nonrefillable Containers 5 Gallons or Less:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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 containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

**Nonrefillable containers larger than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers larger than 5 gallons:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Or

**Refillable Container:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

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