

PAYNE COUNTY
BOARD OF COUNTY COMMISSIONERS
STILLWATER, OKLAHOMA

"NOTICE TO BIDDERS"

Notice is hereby given that the Payne County Board of Commissioners State of Oklahoma, will receive sealed bids for the following:

**BID # 2021-35
HERBICIDES**

Bid documents may be picked up at the Payne County Clerk's Office at 315 W. 6th, Suite 202, Payne County Administration Building, Stillwater, Oklahoma, or you can request that the Bid Documents be E-mailed to you, call 405-747-8348 to request that they be mailed or E-mailed.

Bids should be mailed or hand delivered to the Payne County Clerk, 315 W. 6th, Suite 202, Stillwater, OK. 74074, Bids must be filed with the Payne County Clerk on or before 9:30 A.M. on APRIL 12, 2021. Bids must be sealed and clearly marked:

**BID # 2021-35
FOR
HERBICIDES**

**OPENING: APRIL 12, 2021 @ 9:30 A.M.
DISTRICT 1 COMMISSIONER, ZACH CAVETT, (918) 225-1330**

The Board of County Commissioners, or their appointed representative, will evaluate all bids, and reserves the right to reject any or all bids, and reserves the right to waive any of the listed specifications. The Board of County Commissioners reserves the right to accept the bid determined to best serve the needs of Payne County.

Payne County hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex or national origin in consideration for an award.

**KYLA MCCOMBS
PURCHASING AGENT**



Office of
GLENNA CRAIG
Payne County Clerk

BID # 2021-35
HERBICIDES
PAYNE COUNTY DISTRICT 1, ZACH CAVETT

Vendor and or company representative,

Included in this correspondence you will find information regarding bid specifications, packet information, and instructions per the Payne County Commissioners who are requesting your company submit a bid for the enclosed project or materials.

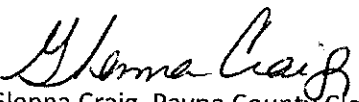
The enclosed packet has been developed and approved by the Payne County Commissioner's, the content of the packet is per their instruction. The Payne County Clerk's office is the facilitator of the bid process and is required to receive and hold all sealed bids per Oklahoma State Statutes to present to the Board of Commissioners in an open session.

If you have any questions, in regards, to the pack content, specifications, and instructions please contact the following:

ZACH CAVETT, DISTRICT 1 COMMISSIONER- 918-225-1330

We appreciate your bid and time, in regards, to the process. We look forward to hearing from you.

Kind Regards,


Glenna Craig, Payne County Clerk
State of Oklahoma

All bids can be mailed or emailed to vendors upon request, or can be downloaded for completion from our website:
www.countyclerk.paynecounty.org
CONTACT KYLA MCCOMBS-PAYNE COUNTY PURCHASING AGENT FOR EMAIL OR MAILED BIDS AT:
kmccombs@paynecountyclerk.org

ALL BIDS MUST BE SUBMITTED BACK TO THE PAYNE COUNTY CLERKS OFFICE BY MAIL, OR IN PERSON SEALED BEFORE 9:30 THE DATE OF BID OPENING.



Office of
GLENNA CRAIG
Payne County Clerk

INVITATION TO BID

The Board of County Commissioners, Payne County, Oklahoma is seeking sealed bids for:
BID # 2021-35
HERBICIDES

BID # 2021-35

Date Published: APRIL 3, 2021

Bidding Period Closing Date and Hour: APRIL 12, 2021 @ 9:30 A.M.

Sealed Bid Opening Date and Hour: APRIL 12, 2021 @ 9:30 A.M.

Location: "The Gloria Hesser Commissioners Meeting Room" Room 200, Payne County Administration Building.

Address: 315 W. 6th, Ste. 202, Stillwater, OK. 74074

Requesting Authority: PAYNE COUNTY DISTRICT 1

DISTRICT 1 COMMISSIONER, ZACH CAVETT

PHONE: 918-225-1330

Bid submissions are to be addressed to:

ATTN: Payne County Purchasing Agent
Payne County Clerk's Office
315 W. 6th, Suite 202
Stillwater, OK 74074

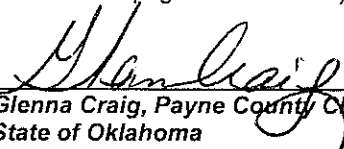
Please review the attached Terms and Conditions pertaining to the submission of this bid.

Please pay particular attention to item (1) of the Terms and Conditions. This item specifies how the bid envelopes are to be identified to prevent inadvertent or premature opening of sealed bids. Your compliance will ensure consideration of your bid by the awarding body. Late bids will not be considered.

The Non-Collusions Affidavit bearing original signature must be notarized and returned with the bid submission.

This packet contains:

1. Invitation to Bid
2. Terms and Conditions for Bidding
3. Affidavit for Filing with Competitive Bid
4. Specifications/Bid forms for desired item(s) (may be more than one page of information).


Glenna Craig, Payne County Clerk
State of Oklahoma
315 W. 6th, Suite 202
Stillwater, OK 74074



Office of
GLENNA CRAIG
Payne County Clerk

TERMS AND CONDITIONS
THESE ITEMS APPLY TO AND BECOME A PART OF THE BID
NO EXCEPTIONS TO THESE TERMS AND CONDITIONS WILL BE CONSIDERED

1. Bids must be submitted on the included form only. Each bid shall be placed in a separate envelope. Be sure the envelope is completely and properly identified and sealed, showing the bid name and number in the lower left-hand corner.
2. All bids shall be entered on the Bid Form enclosed or a copy thereof. Bids are to be typewritten or in ink. No bidder may withdraw his proposal for a period of thirty (30) days after the date and hour set for the opening of bids.
3. The bidder shall attach the manufacturer's name of the equipment or material to be furnished, type model numbers descriptive bulletins and specifications. All guarantees and warranties should be clearly stated. This data shall be sufficient detail to describe accurately the equipment or material to be furnished. Manufacturer's specifications, in respect to the successful bidder, shall be considered as part of the contract with Payne County.
4. Any exceptions or deviations from written specifications shall be identified in writing and attached to the bid form.
5. The enclosed affidavit for Filing with Competitive Bid MUST be returned with the bid.
6. Payne County reserves the right to reject any and all bids and to waive any technicalities in the bidding.
7. Direct purchase of certain items of equipment or material by Payne County is exempt from Federal Excise Tax and Oklahoma Sales Tax. In such cases, the bidder shall quote prices which do not include Federal Excise Tax and Oklahoma Sales Tax.
8. Bid must show number of days required for delivery under normal conditions. Contractor must keep the County advised at all times of the status of the order. For any exception to the delivery date as specified on this order, vendor shall give prior notification and obtain written approval from the Purchasing Agent. Default in promised delivery date or failure to meet specifications, authorizes the County to purchase supplies elsewhere and charge the full increase of cost and handling to defaulting contractor.
9. Bidder agrees to defend and save Payne County from and against all demands, claims costs expense, damage and judgments based upon infringement of any patent to goods specified in this order or the ordinary use or operation of such goods by the County or use or operation of such goods in accordance with the bidder's direction.
10. If the bid requires a written contract, the successful bidders shall execute a written contract with the county within (10) days after submission of the contracts to said bidder.
11. This bid is submitted as a legal offer, and any bid when accepted by the County constitutes a firm contract.
12. **If the bid is \$50,000.00 or greater, Bidder must furnish a bid bond or cashier's check in the amount of 5% of the bid with bid submission.**
13. **If the bid is \$50,000.00 or greater, and if the bid involves a public construction contract, successful Bidder must furnish Performance, Maintenance and Payment Bonds as required by law.**
14. Successful bidder will be required to furnish their own Workmen's Comp and General Liability Insurance as required by Oklahoma State Law and by Payne County.



Office of
GLENNA CRAIG
Payne County Clerk

S.A.&I. 425/1-4040 (2000)

AFFIDAVIT FOR FILING WITH COMPETITIVE BID

STATE OF OKLAHOMA)

)SS

COUNTY OF _____)

_____, of lawful age, being first duly sworn, on oath says, that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any county official or employee as to quantity, quality or price in the prospective contract, or any other terms of said prospective contract, or in any discussions between bidders and any county official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Firm: _____

Signed by: _____
(manual signature of undersigned)

Title: _____

Address: _____

City: _____ State: _____

Zip: _____ Tax ID: _____

Telephone (____) _____ Fax (____) _____

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public (or Clerk or Judge)

My commission expires: _____

Note:

Each competitive bid submitted to a county, school district or municipality must be accompanied with the above Affidavit as required by 61 Okl.St. Ann. § 138

BID #2021-35 - BID SPECS AND PRICE FORM

- All vendors submitting bids for an “or equal” product(s) should furnish product labels and MSDS sheets for the product(s) they are bidding. This information should be included in the bid packet being submitted.
- Herbicide shall be registered and approved by the EPA

Item #1 - MSMA Plus HC or Equal:

BID Price FOB:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

BID Price DELIVERED:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

Item #2- Patriot Selective Herbicide or Equal:

BID Price FOB:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

BID Price DELIVERED:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

Item #3- Prefer 90 Nonionic Surfactant or Equal:

BID Price FOB:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

BID Price DELIVERED:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

Item #4- GrazonNext HL or Equal :

BID Price FOB:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

BID Price DELIVERED:

Gallon _____
2.5 Gallon _____
30 Gallon Drum _____
275 Gallon Tote _____
_____ Gallon Tote _____

Drexel

MSMA 6 Plus

MSMA Liquid Plus Surfactant

For selective post-emergent weed control in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*..... 47.6%

OTHER INGREDIENTS:..... 52.4%

TOTAL:..... 100.0%

* This product contains 6 pounds of MSMA per gallon.

* Total Arsenic (as elemental), all in water-soluble form, is 22.0%.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See **FIRST AID** Below

EPA Reg. No. 19713-42

Net Content:

EPA Est. No. 19713-MS-1

2.5 Gals. (9.46 L)

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF IN EYES:

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

IF ON SKIN OR CLOTHING:

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

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart. *(Continued)*

PRECAUTIONARY STATEMENTS (Cont.)

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use 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 requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters or rinsate.

USE INFORMATION

MSMA 6 PLUS is a herbicide useful for controlling weeds in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way. It is a combination of herbicide and surfactant. It is unnecessary to add any surfactant to the spray solution. Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Weeds controlled by this product include:

Bahiagrass (<i>Paspalum</i> sp.)	Crabgrass, Large (<i>Digitaria</i> sp.)
Barnyardgrass (<i>Echinochloa crus-galli</i>)	Crabgrass, Smooth (<i>Digitaria</i> sp.)
Beggartick, Hairy (<i>Biden pilosa</i>)	Dallisgrass (<i>Paspalum dilatatum</i>)
Brachiaria spp.	Dandelion (<i>Taraxacum officinale</i>)
Broomsedge	Dayflower (<i>Commelina</i> sp.)
Chickweed (<i>Stellaria media</i>)	Fiddleneck (<i>Amsinckia</i> sp.)
Cocklebur (<i>Xanthium spinosum</i>)	

(Continued)

Manufactured By:

Drexel Chemical Company

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972

The DREXEL logo is a registered trademark of Drexel Chemical Company.

(Cont.)	
Florida Beggarweed (<i>Desmodium tortuosum</i>)	Oats, Wild (<i>Avena fatua</i>)
Foxtail (<i>Setaria</i> sp.)	Pigweed (<i>Amaranthus</i> sp.)
Goosegrass (<i>Eleusine indica</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Guineagrass (<i>Panicum</i> sp.)	Purslane, common
Jimsonweed (<i>Datura stramonium</i>)	Ragweed (<i>Ambrosia</i> spp.)
Johnsongrass (<i>Sorghum halipense</i>)	Sandbur (<i>Cenchrus</i> sp.)
Morningglory (<i>Ipomoea</i> spp.)	Sicklepod (<i>Cassia obtusifolia</i>)
Mustard, Wild	Sorrel, Wood (<i>Oxalis</i> sp.)
Nutsedge (<i>Cyperus</i> sp.)	Spurge (<i>Euphorbia</i> sp.)
	Witchgrass (<i>Panicum capillare</i>)

RESISTANCE MANAGEMENT

GROUP 17 HERBICIDE

This product is a Group 17 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 17 herbicides. Weed species with acquired resistance to Group 17 may eventually dominate the weed population if Group 17 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 17 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 17 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or pre-mixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank-mix or pre-pack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as polyethylene or polyvinyl chloride 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 WPS 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.

Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

MIXING INSTRUCTIONS

This product is completely water-soluble. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide with agitation. Finish filling the tank with water and apply. After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period. Although this product is only moderately corrosive, do not use in galvanized or aluminum equipment.

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 to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
- 2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the "AERIAL DRIFT REDUCTION ADVISORY INFORMATION" section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

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 airstream 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 larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths 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 speeds of 2 to 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 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 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

This 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 area).

COTTON

This product is useful for the control of weeds listed under "USE INFORMATION" section and many similar weeds. Applications can be made: 1) Post-emergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Post-emergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom. Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS

- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton and Washington.

Note: Applications to Cotton in Florida should be confined to band treatments.

- Only one application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if Pigweed escapes the first application), then a second or repeat application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 pounds a.i. per acre per season.
- Do not apply pre-plant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.
- Do not feed treated foliage to livestock or graze treated areas.

Post-Emergent Applications Using Ground or Aircraft Equipment

as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Apply 2.5 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. **DO NOT** repeat this treatment. **Two applications:** Mix at the rate of 1 to 1.25 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. **DO NOT** make more than two applications per season. Do not feed treated foliage to livestock or graze treated areas.

Post-emergent Directed Spray Applications: Mix this product at the rate of 2.66 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.66 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1 inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton foliage, but to give good coverage of the weeds. If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed treated foliage to livestock or graze treated areas.

GOLF COURSES AND SOD FARMS

Mow Turfgrass to a height of 1 to 1.5 inches before treatment. Mix 1 fluid ounce (2 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. For established Bermudagrass and Zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT** apply to St. Augustinegrass except for commercial sod production. **DO NOT** apply to Carpetgrass, Centipedegrass or to Dichondra. **DO NOT** reseed until two weeks after last application. For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. **DO NOT** apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS

- For newly constructed golf courses, **ONLY** one broadcast application is permitted.
- For all other applications to golf courses, this product can **ONLY** be used for spot treatments (100 sq. ft. per spot), not to exceed 25% of the total golf course acreage per year.
- In Sod farms, **ONLY** two broadcast applications are allowed per season. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

HIGHWAY RIGHTS-OF-WAY

This product is useful for controlling weeds listed under "USE INFORMATION" section and similar other weeds on Highway Rights-Of-Way. Mix this product at a rate of 2.5 to 6 pints per 40 to 50 gallons of water per acre. Use higher rates and spray volume for dense weed growth. For small areas, use 1 to 2 fluid ounces in 5 gallons per 1,000 square feet. Spray undesirable vegetation thoroughly to point of runoff. Adequate coverage and complete wetting of foliage is important for effective control. If regrowth occurs, reapply as required.

USE RESTRICTIONS

- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. High heat may form volatile arsenic compounds. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed, seed, fungicides, insecticides and fertilizers to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps while wearing protective clothing:

1. Contain spill. Absorb with an inert material such as sand or sawdust.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer content as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER HANDLING:

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 gallons & Bulk): 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 mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

GROUP 2 HERBICIDE

Patriot®

Selective Herbicide

ACTIVE INGREDIENT:

Metsulfuron Methyl: Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2yl)amino]

Carbonyl]amino]sulfonyl]benzoate 60.0%

OTHER INGREDIENTS: 40.0%

TOTAL: 100.0%

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 this label, find someone to explain it to you in detail.)

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

For Chemical Spill, Leak, Fire,
or Exposure, Call CHEMTREC
(800) 424-9300

For Medical Emergencies Only,
Call (877) 325-1840

EPA Reg. No 228-391

Manufactured for
Nufarm Americas Inc.
11901 S. Austin Avenue
Alsip, IL 60803



Nufarm

Grow a better tomorrow.

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a doctor or poison control center immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment for advice.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes, rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact (877) 325-1840 for emergency medical treatment information.</p>	

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION / PRECAUCION**

Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [(40 CFR Part 170)] must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE, if no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements:

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 (40CFR 170.240 (d) (4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in a emergency, such as a spill or equipment break-down.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters.

This herbicide is injurious to plants at extremely low concentrations. Nontarget plants may be adversely affected from drift and run-off.

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 in your State responsible for pesticide regulation.

This product must be used only in accordance with the instructions on this label.

Nufarm will not be responsible for losses or damages resulting from the use of this product in any manner not specified by Nufarm. User assumes all risks associated with such uses not on this label.

For tank mixes, use the most restrictive limitations from the labeling of the products being mixed. Use only those tank mix partners which are labeled for the appropriate use site. Do not use on food or feed crops except as specified by this label or supplemental labeling.

TANK MIXES

This product may be tank mixed with other herbicides registered for the use sites described in this label. Use only those tank mix partners which are labeled for the appropriate use site. When tank mixing, use the most restrictive label limitations for each of the products being used in the tank mix.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 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, 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.

Keep people and pets off treated areas until sprays have dried.

Non-crop industrial weed control, selective weed control in turf (industrial, unimproved only), and weed control in pastures and rangeland are not within the scope of the Worker Protection Standard.

Keep unprotected persons out of treated areas until sprays have dried.

IMPORTANT

DO NOT USE ON FOOD OR FEED CROPS EXCEPT AS SPECIFIED BY THIS LABEL OR SUPPLEMENTAL LABELING. Injury to or loss of desirable trees or other plants may result from failure to observe the following: Do not apply Patriot (except as directed), or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water. Keep from contact with fertilizers, insecticides, fungicides and seeds. Following a Patriot application, do not use sprayer for application to food or feed crops other than as directed by EPA registered label instructions. This is extremely important, as low rates of Patriot can kill or severely injure most crops (except small grains).

PRODUCT INFORMATION

Patriot is a water dispersible granule (WDG) that is mixed in water and applied as a spray. Patriot controls many annual and perennial weeds and woody plants in noncrop areas, conifer and hardwood plantations.

Patriot is mixed in water or can be preslurried in water and added to liquid nitrogen carrier solutions and applied as a uniform broadcast spray.

Patriot is noncorrosive, nonflammable, nonvolatile, and does not freeze.

Patriot controls many annual and perennial weeds and unwanted woody plants on private, public and military lands, on rights-of-way, industrial sites, non-crop areas, ditchbanks of dry drainage ditches, certain types of unimproved turf grass, and conifer and hardwood plantations, including grazed areas on these sites. Do not use on irrigation ditches.

Patriot may also be used for controlling and suppressing undesirable weeds and hardwoods in conifer plantations, on land primarily dedicated to the production of wheat (including durum), barley, triticale, fallow lands, pasture, and rangeland, CRP land and on irrigated or dry land grain sorghum in Colorado, Kansas, Nebraska, Oklahoma, and Texas (north of Interstate 20), as well as selected uncultivated agricultural areas (fence rows, farmyards, and rights-of-way). Patriot may also be used for controlling and suppressing undesirable weeds and hardwoods directly adjacent to treated pastures or rangeland, where grazing or harvesting for animal feed may occur.

Patriot controls weeds and woody plants primarily by postemergent activity. For best results, apply Patriot to young, actively growing weeds. Although Patriot has preemergence activity at the higher use rates, best results are generally obtained when Patriot is applied to foliage after emergence or dormancy break. Generally, for the control of annual weeds, Patriot provides best results when applied to young, actively growing weeds. For the control of perennial weeds, applications made at the bud/bloom stage or while the target weeds are in the fall rosette stage may provide the best results. The use rate depends upon the weed species and size at the time of application.

The degree and duration of control may depend on the following:

- Weed spectrum and infestation intensity
- Weed size at application
- Environmental conditions at and following treatment
- Soil pH, soil moisture, and soil organic matter.

Patriot may be applied on conifer and hardwood plantations and noncrop sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittently flooded low lying sites when no water is present. It is also permissible to treat marshes, swamps, and bogs after water has receded as well as seasonally dry floodplains where surface water is not present, terrestrial areas of deltas and low lying areas where water is drained but may be isolated in pockets due to uneven or unlevel conditions. Do not make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

IMPORTANT INFORMATION PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

USE RESTRICTIONS

Injury to or loss of desirable trees or other plants may result from failure to observe the following.

- Do not drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the product may be washed or moved into contact with their roots.
- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to this product may injure or kill most crops. Injury may be more severe when crops are irrigated. Do not apply this product when these conditions are identified and powdery, dry soil or light, and sandy soils are known to be prevalent in the area being treated.
- Do not apply to frozen ground as surface runoff may occur.
- Do not apply to snow-covered ground.
- Do not apply through any type of irrigation system.
- Do not apply to irrigated land where the tailwater will be used to irrigate crops.
- Do not contaminate any body of water, including irrigation water.
- Spraying and mixing equipment used with this product must not be used for subsequent application without adequately being cleaned to food or feed crops with the exception of pastures, rangeland, wheat, barley, grain sorghum, triticale, fallow and CRP lands as low rates of this product can kill or severely injure most food or feed crops.
- Do not apply to wheat, barley or pastures undersown with legumes, as injury to the forage may result.
- Do not use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla and Conejos
- [Do not use this product in California.]
- Do not use on grasses grown for seed.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- When this product is used at rates of 1-2/3 ounce per acre or less, there are no grazing or haying restrictions on this product.

USE PRECAUTIONS

Injury to or loss of desirable trees or other plants may result from failure to observe the following.

- Prevent drift of spray to desirable plants.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, to surfaces paved with materials such as asphalt or concrete, or to soils through which rainfall will not readily penetrate may result in runoff and movement of this product. Treated soil should be left undisturbed to reduce the potential for this product movement by soil erosion due to wind or water.
- Applications of this product to pastures, rangeland or CRP undersown with legumes may cause injury to the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of this product.
- Wheat and barley varieties may differ in their response to various herbicides. Nufarm recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of this product to a small area.
- Under certain conditions such as heavy rainfall, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after application of this product, temporary discoloration and/or crop injury may occur. This product should not be applied to wheat or barley that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest when crop is in the 2 to 5-leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.
- To reduce the potential for movement of treated soil due to wind erosion, do not apply to powdery dry or light sandy soils until they have been stabilized by rainfall, trashy mulch, reduced tillage, or other cultural practices. Injury to immediately adjacent crops may occur when treated soil is blown onto land used to produce crops other than cereal grains or pasture/rangeland.
- For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D or MCPA should improve weed control under these conditions.
- Preplant or preemergence applications of 2,4-D or herbicides containing 2,4-D made within 2 weeks of planting spring cereals may cause crop injury when used in conjunction with early postemergence applications of this product. For increased crop safety, delay treatment of this product until crop tillering has begun.
- The combined treatment effects of this product postemergence preceded by preemergence wild oat herbicides may cause crop injury to spring wheat when crop stress (soil crusting, planting too deep, prolonged cold weather, or drought) causes poor seedling vigor.
- In the Pacific Northwest, to prevent cold weather-related crop injury, avoid making applications during winter months when weather conditions are unpredictable and can be severe.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

Patriot is absorbed primarily through the foliage of plants, and by the roots to a lesser degree. Plant cell division is generally inhibited in sensitive plants within a few hours following uptake. Two to 4 weeks after application, leaf growth slows followed by discoloration and tissue death. The final effects on annual weeds are evident about 4 to 6 weeks after application. The ultimate effect on perennial weeds and woody plants occurs in the growing season following application.

Warm, moist conditions following treatment promote the activity of Patriot while cold dry conditions may reduce or delay activity. Weeds and brush hardened off by cold weather or drought stress may not be controlled.

One to two inches of rainfall or sprinkler irrigation (enough to wet the top 2-3 inches of soil profile) may be needed to move this product into the weed root zone before the next flush of weeds emerge. The amount of moisture required for sufficient activation increases with crop or weed residue and for finer textured soils. Without sufficient rainfall or sprinkler irrigation to move this product into the weed root zone, weeds that germinate after treatment will not be controlled.

Application of this product provides the best control in vigorously growing grasses that shade competitive weeds. Weed control in areas of thin grass may not be as satisfactory. However, a grass canopy that is too dense at application can intercept a spray and reduce weed control.

This product is safe to grasses under normal conditions. However, grasses that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices may be injured by applications of this product. In addition, different species of grass may be sensitive to treatment with this product under otherwise normal conditions. Application of this product to these species may result in injury.

The use of a surfactant can enhance the control of susceptible plants, except where noted. Apply at a minimum rate (concentration) of 1/4% volume/volume (1 quart per 100 gallons of spray solution) or at the manufacturer's specified rate. Use only EPA approved surfactants containing at least 80% active ingredient. Certain types of surfactants, such as those incorporating acetic acid (i.e. LI-700), may not be compatible with this product and may result in decreased performance. Certain surfactants may not be suitable for use on desirable plants such as turf and conifers, listed on this label. Consult the surfactant manufacturer's label for appropriate uses.

Weed and brush control may be reduced if rainfall, snowfall or sprinkler irrigation occurs within 4 hours following application.

RESISTANCE MANAGEMENT

This product contains the active ingredient metsulfuron methyl which is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistance weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide guidance available in your area.

INTEGRATED PEST MANAGEMENT

This product may be used as a part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

SPRAY EQUIPMENT

For specific application equipment refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when the crop canopy is dense. Avoid swath overlapping and shut off spray booms while starting, turning, slowing or stopping to avoid crop injury.

Do not make applications using equipment and/or spray volumes or under weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to the **Spray Drift Management** section of the label. Continuous agitation is required to keep this product in suspension.

Low rates of this product can kill or severely injure most crops. Following an application of this product, the use of the same spray equipment to apply other pesticides to crops on which this product is not registered may result in undesirable damage. The most effective way to reduce this crop damage potential is to use dedicated mixing and application equipment.

SPRAYER CLEANUP

Spray equipment must be cleaned before this product is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined below.

At the End of the Day

When multiple loads of this product are applied, it is advised that at the end of each day of spraying the interior of the tank be rinsed with fresh water then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

Before Spraying Crops Other than Wheat, Barley, Triticale, Grain Sorghum, Fallow, Pasture or Rangeland:

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gallon of household ammonia* (contains 3% active) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse tank, boom, and hoses with clean water.
6. If only ammonia is used as a cleaner, the rinsate solution may be applied back to use sites listed on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

Equivalent amounts of an alternate-strength ammonia solution or a Nufarm-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or Nufarm representative for a listing of approved cleaners.

Notes:

1. **ATTENTION:** Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When this product is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
4. In addition to the cleanout procedure for this product, all pre-cleanout guidelines on subsequently applied products should be followed as per the individual labels.
5. Where spray equipment is frequently used for applications of this product and subsequent applications of other pesticides to sensitive crops during the same spray season, dedicate a sprayer to use only this product to further reduce the chance of crop injury.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making applications.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **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** sections of this label.

Controlling Droplet Size- General Techniques

- **Volume-** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rate flows produce larger droplets.
- **Pressure-** Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **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.

Controlling Droplet Size- Aircraft

- **Number of Nozzles-** Use the minimum number of nozzles with the highest flow rate that provides uniform coverage.
- **Nozzle Orientation-** Orienting nozzles so that the spray is emitted backwards, parallel to the air stream will produce larger droplets than other orientations.
- **Nozzle Type-** Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length-** The boom length should not exceed 3/4 of the wing or rotor length- longer booms increase drift potential.
- **Application Height-** Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2 to 10 mph) which are blowing in a constant direction. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

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

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature 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 smoke from the 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.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is specified.

SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non target crops) is an effective way to minimize the effect of spray drift.

DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution.

INVASIVE SPECIES MANAGEMENT

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants.

Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is recommended, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response.

PREPARING FOR USE – SITE SPECIFIC CONSIDERATIONS

Understanding the risks associated with the application of this product is essential to aid in preventing off-site injury to desirable vegetation and agricultural crops. The risk of off-site movement both during and after application may be affected by a number of site specific factors such as the nature, texture and stability of the soil, the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, drainage patterns, and other local physical and environmental conditions. A careful evaluation of the potential for off-site movement from the intended application site, including movement of treated soil by wind or water erosion, must be made prior to using this product. This evaluation is particularly critical where desirable vegetation or crops are grown on neighboring land for which the use of this product is not labeled. If prevailing local conditions may be expected to result in off-site movement and cause damage to neighboring desirable vegetation or agricultural crops, do not apply this product.

Before applying this product, the user must read and understand all label directions, precautions and restrictions completely, including these requirements for a site specific evaluation. If you do not understand any of the instructions or precautions on the label, or are unable to make a site specific evaluation yourself, consult your local agricultural dealer, cooperative extension service, land managers, professional consultants, or other qualified authorities familiar with the area to be treated. If you still have questions regarding the need for site specific considerations, please call your local Nufarm representative.

TANK MIXES

This product may be tank mixed with other herbicides registered for the use sites described in this label. Use only those tank mix partners which are labeled for the appropriate use site. When tank mixing, use the most restrictive label limitations for each of the products being used in the tank mix.

CONIFER PLANTATIONS

Application Information

Apply Patriot to control many species of weeds and deciduous trees on sites where conifers are growing or are to be planted. Apply by ground equipment or by air (helicopter only). Refer to the **WEEDS CONTROLLED** and **BRUSH SPECIES CONTROLLED** for a listing of susceptible species.

Application Timing

Apply Patriot after weeds have emerged or after undesirable hardwoods have broken winter dormancy and have reached the point of full leaf expansion.

Conifer Site Preparation

Application Before Transplanting

After consulting the **WEEDS CONTROLLED** and **BRUSH SPECIES CONTROLLED** tables apply the rates of Patriot listed for the most difficult to control species on the site.

Southeast - Apply up to 4 ounce per acre for loblolly and slash pines. Transplant the following planting season.

Northeast and Lake States - Apply up to 2 ounce per acre for red pine. Transplant the following planting season. Apply up to 2 ounces per acre for black, white and Norway spruce. Transplant the following spring.

West - Apply up to 2 ounce per acre prior to planting Douglas fir, Sitka Spruce, Western Red Cedar, Western Hemlock, Ponderosa Pine, and Grand Fir in the Coast Rangeland and western slope of the Cascades in Oregon and Washington. These conifer species listed can be planted any time after application. Other conifer species can be planted providing the user has prior experience indicating acceptable tolerance to soil residues of this product.

Without prior experience, plant other species on a small scale to determine selectivity before large-scale plantings are made as unacceptable injury may occur. Nufarm will not assume responsibility for injury to any conifer species not listed on this label.

Tank Mix Combinations

For broader spectrum control, use the following products in combination with Patriot.

With Razor Pro or Credit 41 Extra or Credit Xtreme (Glyphosate)

Tank mix 1 to 2 ounces of this product with 10 to 24 fluid ounces of Razor Pro / Credit 41 Extra or 7 to 16 fluid ounces of Credit Xtreme per acre. Refer to the product container for a list of species controlled.

With Nufarm Polaris® AC Complete Herbicide (4 pounds per gallon active ingredient imazapyr)

Tank mix 1 to 2 ounces per acre of Patriot with labeled rate of Polaris AC Complete. Loblolly and slash pines may be transplanted the planting season following application. The combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophorn beam, persimmon, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dagoon, hickories, and red maple.

With Razor Pro or Credit 41 Extra or Credit Xtreme + Polaris AC Complete

Tank mix 1/2 to 1 ounce per acre of Patriot with labeled rate Razor Pro / Credit 41 Extra / Credit Xtreme + Polaris AC Complete. Slash and loblolly pines may be transplanted the planting season following application. The combination controls cherry, dogwood, elms, oaks (red and water), persimmon, sassafras, sweetgum and suppresses hickory.

With Razor Pro or Credit 41 Extra or Credit Xtreme (Glyphosate) + Nufarm Polaris AC Complete Herbicide (4 pounds per gallon active ingredient imazapyr)

Tank mix 1/2 to 1 ounce of this product with 16 to 64 fluid ounces of Razor Pro / Credit 41 Extra or 7 to 16 fluid ounces of Credit Xtreme and 10 to 12 fluid ounces of Polaris AC Complete per acre. Slash and loblolly pines may be transplanted the planting season following application. This combinations controls cherry, dogwood, elms, oaks (red and water), persimmon, sassafras, sweetgum and suppresses hickory.

With Spyder Extra (sulfometuron)

Tank mix 1/2 to 1-1/2 ounces of Patriot per acre with labeled rate of Spyder Extra for herbaceous weed control. Refer to the product container and the "Weeds Controlled" section of this label for a listing of the weeds controlled. Loblolly and slash pines may be transplanted the planting season following application.

Tank mix 2 ounces of Patriot per with labeled rate of Spyder Extra for herbaceous weed control and early spring suppression of bull thistle and Canada thistle in the Coast Rangeland and western slope of the Cascade Mountains. Douglas fir may be transplanted at least 90 days following application.

VELPAR L or VELPAR DF

Tank mix 1 to 2 ounces of Patriot per acre with VELPAR L or VELPAR DF at the rates listed on the container for various soil textures. Loblolly and slash pines may be transplanted the planting season following application. Refer to the product container for a list of species controlled.

Release - Hardwood Control and Suppression

Use Patriot for application over the top of established slash and loblolly pine to control the species listed in **WEEDS CONTROLLED** and **BRUSH SPECIES CONTROLLED** section of this label. Apply 1 to 4 ounces per acre to control the species indicated, including kudzu.

Tank Mix Combinations

For broader spectrum control in Hardwood Control and Suppression use the following products in combination with Patriot: Arsenal Applicator's Concentrate / Polaris or VELPAR L / VELPAR DF.

Nufarm Polaris AC Complete

A tank mix of 1 to 2 ounces of Patriot per acre with labeled rate of Polaris AC Complete may be applied to loblolly pine. Refer to the Polaris AC Complete label regarding the use of surfactants and the appropriate application timing with respect to the age and development stage of the pines. The combination controls ash, black gum, cherry, hawthorn, honeysuckle, hophornbeam, oaks (red, white and water), sassafras, sweetgum, Vaccinium species, and suppresses blackberry, dogwood, elms, myrtle dagoon, hickories, persimmon, and red maple.

VELPAR L or VELPAR DF

Tank mix 1 to 2 ounces of Patriot per acre with VELPAR L OR VELPAR DF at the rates listed on the container for various soil textures. The combination may be applied to loblolly and slash pines.

Release - Herbaceous Weed Control

Patriot may be applied to transplanted loblolly and slash pine for the control of herbaceous competition. Consult the "Weeds Controlled" section for a listing of the susceptible species and specific application rates. Best results are obtained when Patriot is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations

For broader spectrum control in Herbaceous Weed Control use the following products in combination Patriot: Polaris AC Complete or Spyder Extra or VELPAR L / VELPAR.

With Nufarm Polaris AC Complete

Tank mix 1/2 to 1 ounce of Patriot per acre with labeled rate Polaris AC Complete. The tank mix may be used on loblolly pine.

With Spyder Extra

Tank mix 1/2 to 1-1/2 ounces of Patriot per acre with labeled rate Spyder Extra. Best results are obtained when Patriot is applied just before weed emergence until shortly after weed emergence. The tank mix may be used on loblolly and slash pine.

VELPAR L or VELPAR DF

Tank mix 1/2 to 1 ounce of Patriot per acre with VELPAR L or VELPAR DF at the rates listed on the container for various soil textures. The combination may be applied to loblolly and slash pines.

Release- Directed Spray in Conifers

Western US

To release conifers from competing brush species, such as, blackberry, salmonberry, snowberry, thimbleberry and wild roses, mix 2 to 4 ounces of Patriot per 100 gallons of spray solution. Direct spray onto the foliage of competing brush species using a knapsack or backpack sprayer. For best results, apply any time after the brush species have reached full leaf stage but before autumn coloration. For best results at application, the majority of the brush must be less than six feet in height to help ensure adequate spray coverage. Thorough coverage of the target foliage is necessary to optimize results. Care must be taken to direct the Patriot spray solution away from the conifer foliage.

NOTE: Patriot may cause temporary yellowing and or growth suppression when the spray solution contacts conifer foliage. The use of a surfactant with Patriot may improve brush control results. When using a surfactant with Patriot, extra precaution must be taken to avoid contact with conifer foliage. Excessive drift onto conifers may result in severe injury.

IMPORTANT RESTRICTIONS—CONIFER PLANTATIONS ONLY

- Do not apply Patriot to conifers grown as ornamentals.

IMPORTANT PRECAUTIONS—CONIFER PLANTATIONS ONLY

- Applications of Patriot made to conifers that are suffering from loss of vigor caused by insects, diseases, drought, winter damage, animal damage, excessive soil moisture, planting shock, or other stresses may injure or kill the trees.
- Applications of Patriot made for herbaceous release should only be made after adequate rainfall has closed the planting slit and settled the soil around the roots following transplanting.
- Patriot applications may result in damage and mortality to other species of conifers when they are present on sites with those listed in the preceding directions for conifer plantations.

HARDWOOD PLANTATIONS

Application Information

Apply Patriot to control many species of weeds on sites where yellow poplar is growing or is to be planted, and on sites where red alder is to be planted. Apply at up to 2 ounces per acre by ground equipment or by air (helicopter only). Refer to the "Weeds Controlled" sections of this label for a listing of susceptible species.

Application Timing

This product may be applied as a site preparation treatment prior to planting red alder or yellow poplar, and may also be applied as a pre-planting site preparation treatment for red alder in tank mixes with other herbicides labeled for this use.

Patriot may also be applied over the top of planted yellow poplar seedlings after the soil has settled around the root systems but before the seedlings have broken dormancy (prior to bud break).

Hardwood Release

Herbaceous Weed Control

Patriot may be applied to yellow poplar for the control of herbaceous competition. Consult the "Weeds Controlled" for a listing of the susceptible species and specific application rates. Best results are obtained when Patriot is applied just before weed emergence until shortly after weed emergence.

Tank Mix Combinations

Tank mix 1/2 ounce of Patriot per acre with labeled rates of VELPAR L as specified on the package label for "RELEASE-HERBACEOUS WEED CONTROL" in pine plantations in the eastern U.S. Follow the VELPAR L label directions regarding altering the application rate by soil texture.

IMPORTANT PRECAUTIONS—HARDWOOD PLANTATIONS ONLY

- Application of VELPAR L and Patriot made to yellow poplar that are suffering from loss of vigor caused by insects, disease, drought, winter damage, animal damage, excessive soil moisture, planting shock or other stresses may injure or kill the seedlings.
- Applications of Patriot made for release should only be made after adequate rain-fall has closed the planting slit and settled the soil around the roots following transplanting.
- Do not use a surfactant for applications made over the tops of trees.
- Careful consideration must be given by an experienced and knowledgeable forester to match the requirements of yellow poplar to the conditions of the site. Treatment of yellow poplar planted on a site inadequate to meet its requirements may injure or kill the seedlings.

GRAIN SORGHUM, WHEAT (including durum), BARLEY, TRITICALE, PASTURE, RANGELAND GRASSES, AND FALLOW

APPLICATION INFORMATION

Use Rates

Wheat (including durum), Barley and Triticale

1/10 ounce Patriot per acre.

Grain Sorghum (Irrigated or dry land, in Colorado, Kansas, Nebraska, Oklahoma, and Texas [north of Interstate 20] only)

1/20 ounce Patriot per acre, plus labeled rate 2,4-D amine. Do not use surfactant or crop oil when applying to grain sorghum.

Pasture and Rangeland

1/10 to 4/10 ounce Patriot per acre as a broadcast treatment. For spot treatments, use up to 1 ounce per 100 gallons of water. Do not exceed 1-2/3 ounces of Patriot per acre per year.

Harvest aid (Wheat, Barley and Triticale)

1/10 ounce Patriot per acre in combination with 2,4-D or Credit 41 Extra / Credit Xtreme / Razor Pro aids in dry down of many broadleaf weeds.

Fallow

1/10 ounce Patriot per acre.

Application Timing-Wheat, Barley and Triticale)

Dryland Wheat, Barley and Triticale

(Except Durum or Wampum Variety) and Triticale

Apply after the crop is in the 2-leaf stage but before boot.

Durum and Wampum

Variety Spring Wheat

Apply after the crop is tillering but before boot. For durum and wampum varieties, use in combination with 2,4-D.

Irrigated Wheat, Barley and Triticale

Apply after the crop begins tillering but before boot. For best results, delay post-treatment irrigation for at least 3 days after treatment and do not exceed 1 inch of water.

Wheat, Barley and Triticale - Harvest Aid

Apply after reaching the hard dough stage, but no later than 10 days before harvest. See section of Harvest Aid Tank Mixtures.

Fallow

This product may be used as a fallow treatment in the spring or fall after weeds have emerged and are actively growing.

Do not apply during boot or early heading as crop injury may result.

Application Timing-Grain Sorghum

Crop Growth Stage: Apply with 2,4-D amine when grain sorghum is from 3 to 15 inches tall. If grain sorghum is taller than 10 inches to the top of the canopy, apply with drop nozzles and keep spray off of foliage. Apply before boot stage only. Read and follow all other use instructions and precautions provided on companion herbicide labels.

NOTE: Sorghum varieties can vary in sensitivity to 2,4-D amine. Spray only those varieties that are known to be tolerant to 2,4-D amine. Contact the seed company or your Local County Extension Service for additional information.

Weed Growth Stage: Apply with 2,4-D amine when all or a majority of the weeds have germinated and emerged. Spray when weeds are a maximum of 6 inches tall for best results. Review the **WEEDS CONTROLLED** section below for specific weeds controlled.

Grain Sorghum Precautions:

Temporary growth stunting and/or crop yellowing may occur soon after application, especially when crops are under stress conditions. Do not use this product on grain sorghum that is grown for seed production or for syrup. Do not use on forage sorghum. Wait a minimum of 30 days before using for silage or forage. Do not include surfactant or crop oil when preparing tankmixes. Do not apply under cold, wet weather conditions or to grain sorghum that is under stress caused by weather, insects, or disease as crop injury may result. Do not apply to long season grain sorghum varieties. Do not apply to grain sorghum that is planted after July 1- crop injury or delayed maturity may occur. Do not apply to grain sorghum more than once per year. This product must be used in combination with 2,4-D on grain sorghum. If using in areas where 2,4-D is restricted, follow all applicable restrictions. Do not use this product on grain sorghum in areas where 2,4-D use is prohibited.

**ADDITIONAL GRASS INFORMATION
APPLICATION INFORMATION FOR GRASS ESTABLISHMENT**

This product may be used for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses:

- Blue grama
- Bluestems – big, little, plains, sand, WW spar
- Buffalograss
- Green sprangletop
- Kleingrass
- Lovegrasses – atherstone, sand, weeping, wilman
- Orchardgrass
- Sideoats grama
- Switchgrass – Blackwell
- Wheatgrasses – bluebunch, crested, intermediate, pubescent, Siberian, slender, streambank, tall, thickspike, western
- Wildrye grass – Russian

Maximize potential for grass establishment by consulting with the Natural Resource and Conservation Service or other government agencies or local experts concerning planting techniques and other cultural practices.

Performance from this product may not always be satisfactory due to the inability of newly planted grass stands to sufficiently compete with weeds, and the severity of weed pressure in new grass stands.

An additional herbicide application or mowing may be needed.

Use Rates and Application Timing for Grass Establishment in Pasture, Rangeland and CRP Preplant (prior to planting) or Preemergence (after planting but before grass emergence)

Do not use more than 1/10 ounce per acre of this product for grass establishment.

Apply this product at 1/10 ounce per acre on all labeled grasses except orchardgrass and Russian wildrye grass. Do not apply this product preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.

Early postemergence to new plantings

Apply this product at 1/10 ounce per acre, plus a non-ionic surfactant at the rate of 2 to 4 pints per 100 gallons of spray solution on all labeled grasses anytime after grass emergence.

Do not use a spray adjuvant other than non-ionic surfactant.

Because grass species differ in time of emergence, apply only after the majority of grasses are in the 3 to 4 leaf stage.

Postemergence to stands with 1-5 leaf grasses planted the previous season

Apply this product at 1/10 ounce per acre plus a non-ionic surfactant at the rate of 2 to 4 pints per 100 gallons of spray solution, on all labeled grasses when the majority of the grasses have one or more leaves.

Do not use a spray adjuvant other than non-ionic surfactant.

APPLICATION INFORMATION FOR ESTABLISHED GRASSES

Use Rates for Established Grasses

Apply up to 1 ounce of this product per acre as a broadcast application to established grasses. For spot applications, use 1 ounce per 100 gallons of water. Do not apply more than 1-2/3 ounces of this product per acre per year.

Refer to the "Weeds Controlled" section of this label for a listing of the weeds controlled by this product and the appropriate use rate to obtain control.

Application Timing – Established Grasses in Pastures, Rangeland and CRP

This product may be used on some native grasses such as bluestems and grama, and on other established grasses such as bermudagrass, bluegrass, orchardgrass, bromegrass, fescue and timothy that were planted the previous growing season (or earlier) and are fully tillered, unless otherwise directed on this label. Specific application information on several of these grass species follows:

Grass	Minimum Time from Grass Establishment to Patriot Application
Bermudagrass	2 months
Bluegrass, bromegrass, and orchardgrass	6 months
Timothy	12 months
Fescue	24 months

Fescue Precautions:

When used on fescue, this product may cause reduced first cutting yields due to temporary stunting, leaf yellowing, or seed head suppression. To help minimize these symptoms, follow the information below:

- Use the lowest labeled rate for the target weeds
- Tank mix this product with 2,4-D for applications
- Apply late in the spring or after the new growth is 5 to 6 inches tall, or in the fall
- Use only a non-ionic surfactant at 1/2 to 1 pint per 100 gallons of spray solution 9/1/16 to 1/8% v/v)
- When liquid nitrogen is the spray carrier, do not include the surfactant

Timothy Precautions:

Timothy should be actively growing and at least 6" tall at application. Application under any other conditions may cause crop yellowing and/or stunting. To help minimize these symptoms, follow the information below:

- Use the lowest labeled rate for the target weeds
- Tank mix this product with 2,4-D for applications
- Apply in the late summer or fall
- Use only a non-ionic surfactant at 1/2 pint per 100 gallons of spray solution
- When liquid nitrogen is the spray carrier, do not include the surfactant

Ryegrass Pastures (Italian or perennial): Do not apply this product to ryegrass pasture as injury to or loss of the pasture may result.

Precautions for Sensitive Grasses:

Application of this product to Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail may cause severe injury to and/or loss of forage.

Varieties and species of forage grasses differ in their tolerance to herbicides. When using this product on a particular grass for the first time, limit use to a small area. In no injury occurs throughout the season, larger acreage may be treated the following season.

Broadleaf forage species, such as alfalfa and clover, are highly sensitive to this product and will be severely stunted or injured by use of this product.

WEEDS CONTROLLED

Apply when weeds are less than 4" tall or in diameter and are actively growing. See specific directions for each weed type. Effectiveness may be reduced if rainfall occurs within 4 hrs after application.

Grain Sorghum 1/20 oz. per acre, plus 1/4 lb. active ingredient 2,4-D amine per acre		
Pigweed species	Puncture vine	Velvetleaf
Cereals, Pasture, Rangeland and Fallow 1/10 oz. per acre		
Blue/purple mustard*	Groundsel (common)	Smallseed falseflax
Bur buttercup (testiculate)	Henbit	Smartweed (green, ladysthumb, pale)
Coast fiddleneck (tarweed)	Kochia*	Snow speedwell
Common chickweed	Lambsquarters (common slimleaf)	Tansymustard*
Common purslane	Mayweed chamomile	Treacle mustard (Bushy Wallflower)
Conical catchfly	Miners lettuce	Tumble/Jim Hill mustard
Cowcockle	Pigweed (redroot, smooth, tumble)	Volunteer sunflower
False chamomile	Plains coreopsis	Waterpod
Field pennycress (fanweed)	Prickly lettuce*	Wild mustard
Flaree	Russian thistle*	
Flixweed*	Shepherd's purse	

Additional Weeds in Pasture/Rangeland Only 1/10 to 2/10 oz. per acre		
Bitter sneezeweed	Common mullein	Plantain
Buttercup	Curly dock	Wild garlic*
Carolina geranium	Dandelion	Woolly croton*
Common Broomweed	Marestail	
2/10 to 3/10 oz. per acre		
Annual Marshelder	Common yarrow	Pensacola bahiagrass*
Blackeyed-Susan	Dogfennel	Purple scabious
Buckbrush**	Horsemint (beebalm)	Western Snowberry**
Burclover	Musk thistle*	Wild carrot
4/10 oz. per acre		
Sericea lespedeza*		

Weed Suppressed** Wheat, Barley, Pasture, Rangeland and Fallow 1/10 oz. per acre		
Canada thistle*	Corn gromwell*	Sowthistle (annual)*
Common sunflower*	Knotweed (prostrate)*	Wild buckwheat*

Brush Suppressed (Pasture and Rangeland Only)** 3/10 oz. per acre		
Blackberry	Dewberry	Multiflora rose*

Weeds/Brush Suppressed with Spot Application (Pasture/Rangeland only) 1 oz. per 100 Gallons of water		
Blackberry	Dewberry	Multiflora rose*
Canada thistle*		

* See the Specific Weed Problems section.

**Weed suppression is a reduction in weed population and/or vigor as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

SPECIFIC WEED PROBLEMS

Note: Thorough spray coverage is very important.

Blue Mustard, Flixweed, and Tansy mustard: For best results, apply this product in tank mixtures with 2,4-D or MCPA postemergence to mustards before bloom.

Canada Thistle and Sowthistle: Apply this product with a surfactant, 2,4-D or MCPA in the spring after the majority of thistles have emerged while still small (rosette stage to 6" elongated stems) and actively growing to reduce the ability of emerged thistles to compete with the crop.

For spot applications to Canada thistle in pasture and rangeland, apply as foliar spray once plant is fully leafed. Apply to runoff and include a surfactant in the spray mix at 1 to 2 quarts, per 100 gallons of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.

Corn Gromwell and Prostrate Knotweed: Apply this product with a surfactant when weeds are actively growing, are not larger than 2" tall and when crop canopy will allow thorough coverage. Tank mixing with 2,4-D or MCPA can improve results.

Kochia, Russian thistle, Prickly lettuce: Resistant biotypes of these weeds are known to occur. For best results, use in a tank mix with Banvel/Banvel SGF and 2,4-D or bromoxynil and 2,4-D (such as 3/4-1 pint. Buctril + 1/4 - 3/8 lb. active 2,4-D ester). Apply in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing. Refer to the Tank Mixtures section of this label for additional details.

Sunflower (common/volunteer): Apply with a surfactant, 2,4-D or MCPA after the majority of sunflowers have emerged, are 2" to 4" tall and are actively growing. Use spray volumes of at least 3 gallons per acre by air or 5 gallons per acre by ground (10 gallons per acre by ground in pastures).

Wild Buckwheat: For best results, apply in a tank mix with MCPA when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favor active weed growth.

Musk Thistle: Apply at 2/10 to 3/10 ounce per acre in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Fall applications should be made before the soil freezes.

Multiflora Rose: For best control, apply as a broadcast application when multiflora rose is less than 3" tall. Application should be made in the spring, soon after multiflora rose is fully leafed. For spot application in pasture and rangeland, apply as a foliar spray once plant is fully leafed. Apply to runoff. Include a surfactant in the spray mix at 1 to 2 quarts per 100 gallons, of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.

Blackberry and Dewberry: For spot applications in pasture and rangeland, apply as a foliar spray once plant is fully leafed. Apply to runoff and include a surfactant in the spray mix at 1 to 2 quarts per 100 gallons, of spray solution. Complete coverage of all foliage and stems is required for control. On tall, dense stands, it may be necessary to spray from both sides to obtain adequate coverage.

Pensacola bahiagrass control in established Bermudagrass pasture: Apply at 3/10 ounce per acre plus surfactant after green-up in the spring but before bahiagrass seedhead formation. Apply when moisture is sufficient to enhance grass growth.

This product effectively removes bahiagrass from bermudagrass pastures. In highly infested pastures, Patriot clears the areas of useful forage until the bermudagrass has time to cover the area. Therefore, do not apply to an entire farm or ranch in one year. Treatments should be made to different areas of a farm over a period of years. Pastures may be reestablished more quickly by fertilization (particularly with nitrogen and potassium) and/or replanting.

Under heavy bahiagrass pressure, grazing pressure, or adverse weather conditions (heat and drought), some regrowth of weeds may occur.

Note: Do not use this product for the control of common or Argentine bahiagrass. Do not apply this product in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

Sericea lespedeza: Apply at 4/10 ounce per acre with a surfactant at 1 to 2 quarts per 100 gallons, of total spray solution. For best results, make applications to sericea lespedeza beginning at flower bud initiation through the full bloom stage of growth.

Note: Do not use if drought conditions exist at intended time of applications.

Wild Garlic: Apply 1/10 to 2/10 ounce per acre in early spring when wild garlic is less than 12" tall with 2" to 4" of new growth.

Wooly Croton: Apply 1/10 to 2/10 ounce per acre in late spring or early summer at preemergence through 2 true leaf stage.

SURFACTANTS

SPRAY ADJUVANTS

Applications of this product must include either a nonionic surfactant or a crop oil concentrate except for grain sorghum. In addition an ammonium nitrogen fertilizer may be used. Consult local Nufarm fact sheets, technical bulletins and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with this product select adjuvants authorized for use with both products. Products must contain only EPA exempt ingredients.

Antifoaming agents may be needed. Consult your Ag dealer applicator or Nufarm representative for a listing of recommended surfactants.

Nonionic Surfactant (NIS)

Apply 0.06 to 0.50% v/v (1/2 to 4 pints per 100 gallons of spray solution). See **Tank Mixtures** section for additional information.

Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Surfactant Rate Exceptions:

- (1) On all spring wheat and spring or winter barley use 1/2 to 1 quart per 100 gallons;
- (2) On Fescue pastures use 1/4 to 1/2 quart per 100 gallons;
- (3) On Timothy pastures use 1/4 quart per 100 gallons.

Consult your agricultural dealer, applicator, or extension agent for a listing of approved surfactants.

Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.

Oil adjuvants must contain at least 80% high quality petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

Ammonium Nitrogen Fertilizer

Use 2 quarts per acre of a high quality urea ammonium nitrate (UAN) such as 28%N or 32%N or 2 pounds/acre of a spray grade ammonium sulfate (AMS). Use 4 quarts per acre UAN or 4 pounds per acre AMS under arid conditions.

Do not use liquid nitrogen fertilizer as the total carrier solution.

Special Adjuvant Types

Combination adjuvant products may be used at doses that provide the required amount of NIS COC MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.

In addition to the adjuvants specified above other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Nufarm product management.

Antifoaming agent may be used if needed.

Do not use low rates of liquid fertilizer as a substitute for surfactant.

GROUND APPLICATION

For optimum spray coverage, use flat-fan or low volume flood nozzles.

For flood nozzles on 30" spacing, use at least 10 gallons spray solution per acre (GPA), nozzles no larger than TK 10 (or equivalent), and at least 30 pounds per square inch (psi). For 40" nozzle spacing, use at least 13 GPA; for 60" spacing, use at least 20 GPA. Overlap nozzles 100% for all spacings.

With Raindrop RA nozzles, use at least 30 GPA and ensure that nozzle spray patterns overlap 100%.

For flat-fan nozzles, use at least 3 GPA for applications to wheat or barley. Use at least 10 GPA for applications to pasture or rangeland. For grain sorghum, use 10-30 GPA and apply uniformly at 20-40 PSI with a properly calibrated low pressure boom sprayer using flat-fan nozzles. If applying to irrigated sorghum, delay first post-treatment irrigation for a minimum of 3 days after treatment. For the first post-treatment irrigation, do not exceed 1". Cultivate prior to treatment to cover exposed brace roots on grain sorghum. This will minimize injury from 2,4-D amine.

Use 50-mesh screens or larger.

AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.

Wheat, Barley, Triticale and Fallow

Use 1 to 5 GPA, use at least 3 GPA in Idaho, Oregon, or Utah. For Pasture and Rangeland – Use 2 to 5 GPA.

Grain Sorghum

Apply at the rate of 2-5 GPA. If applying to irrigated sorghum, delay first post-treatment irrigation for a minimum of 3 days after treatment. For the first post-treatment irrigation, do not exceed 1". Cultivate prior to treatment to cover exposed brace roots of grain sorghum. This will minimize injury from 2,4-D amine.

Pasture and Rangeland

Use 2 to 5 GPA. When applying this product by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields.

See the **SPRAY DRIFT MANAGEMENT** section of this label.

PRODUCT MEASUREMENT

Measure precisely using scales calibrated in ounces.

TANK MIXTURES

This product may be tank mixed with other suitable registered herbicides to control weeds listed under **WEEDS SUPPRESSED**, weeds resistant to this product, or weeds not listed under **WEEDS CONTROLLED**. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, do not tank mix with this product.

Patriot Tank Mixtures in Cereals (Wheat, Barley and Triticale)

With 2,4-D (amine or ester) or MCPA (amine or ester)

Tank-mix with 2,4-D or MCPA (ester formulations provide best results, use 1/10 ounce of this product per acre; add 2,4-D or MCPA herbicides to the tank at 1/4 to 1/2 lb. active ingredient.

Surfactant may be added to the mixture at 1/2 to 1 quart per 100 gallons, of spray solution; however, adding surfactant may increase the potential for crop injury.

Apply with MCPA after the 3 to 5 leaf stage but before boot (with Durum and Wampam varieties, do not apply before tillering). Apply with 2,4-D after tillering (refer to appropriate 2,4-D manufacturer's label), but before boot.

With Diablo or Clash (dicamba)

For best results, apply this product at 1/10 ounce per acre; add 1/16 to 1/8 lb. Diablo / Clash, active ingredient Dicamba. Surfactant may be added to the mixture at 1/2 to 1 quart per 100 gallons, of spray solution; however, adding surfactant may increase the potential for crop injury. Also refer to Diablo / Clash labeling for application timing and restrictions.

With 2,4-D (amine or ester) and Diablo or Clash (dicamba)

Apply in a 3-way tank mix with formulations of Diablo / Clash and 2,4-D. Observe all applicable directions, restrictions and precautions on labels of all products used.

Use 1/10 ounce of this product + 0.063 to 0.083 pounds ai Dicamba (Diablo / Clash) + 4-6 ounce active 2,4-D ester or amine per acre. Use higher rates when weed infestation is heavy. Add 1-2 pint. of surfactant to the 3-way mixture if needed. Surfactant may not be needed with the higher phenoxy rates and ester phenoxy formulations. Consult the specific 2,4-D or Diablo / Clash label, or local recommendations for more information.

Apply this 3-way combination to winter wheat after the crop is tillering and prior to jointing (first node). In Spring wheat (including Durum wheat) apply after crop is tillering and before it exceeds the 5-leaf stage.

Do not apply this 3-way mixture at high rates more than once a year or more than twice per year at the low rates.

With Maestro (bromoxynil)

Apply with bromoxynil containing herbicides registered for use on wheat, barley, or fallow. For best results, add bromoxynil containing herbicides to the tank at 3 to 6 ounce active ingredient per acre (such as Maestro 2EC at 3/4 - 1-1/2 pints per acre).

Read and follow all label instructions on timing and precautions for these herbicides before using these tank mixtures. Follow the most restrictive labeling.

With grass control products

Tank mixtures with grass control products may result in poor grass control. Consult your state experiment station, university or extension agent, agricultural dealer, or crop consultant as potential for antagonism before using the mixture. If no information is available, limit the initial use of this product and the grass product to a small area.

Do not mix with Hoelon SEC, as grass control may be reduced.

To control wild oat, tank mix with Avenge or Assert

When tank mixing with Assert, always include 2,4-D ester, MCPA ester, or bromoxynil containing products (such as Maestro). Tank-mixed applications of this product plus Assert may cause temporary crop discoloration, stunting or injury when heavy rainfall occurs shortly after application.

With Victory (tribenuron methyl)

This product may be tank mixed with Victory based on local recommendations. Read and follow all label instructions on timing, precautions, and warning for these herbicides before using this tank mixture.

With Treaty Extra (thifensulfuron 50% & tribenuron 25%)

This product may be tank mixed with Treaty Extra based on local recommendations. Read and follow all label instructions on timing and precautions for these herbicides before using this tank mixture.

With Insecticides and Fungicides

This product may be tank mixed or used sequentially with insecticides and fungicides registered for use on cereal grains.

However, under certain conditions (drought stress, cold weather, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications with organophosphate insecticides (such as parathion, Di-Syston) may produce temporary crop yellowing or, in severe cases, crop injury.

The potential for crop injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application.

Test these mixtures in a small area before treating large areas.

Do not apply this product within 60 days of crop emergence where an organophosphate insecticide (such as Di-Syston) has been applied as an in-furrow treatment as crop injury may result.

Do not use with Malathion, as crop injury will result.

With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing this product in fertilizer solution.

This product must first be slurried with water and then added to liquid nitrogen solutions (e.g. 28-0-0, 32-0-0). Be sure agitator is running while this product is added. This mixture may result in temporary crop yellowing and stunting.

When using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of a surfactant is necessary. Add surfactant at 1/2 pint to 1 quart per 100 gallons, of spray solution (0.06-0.25% v/v) based on local recommendations.

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or extension agent for specific instructions before adding an adjuvant to these tank mixtures.

When 2,4-D or MCPA is included with a fertilizer/Patriot mixture, ester formulations of 2,4-D or MCPA tend to be more compatible in combinations with this product (see manufacturer's label). Do not add surfactant when using this product in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions.

Note: In certain areas east of the Mississippi river unacceptable crop response may occur with use of straight or dilute nitrogen fertilizer carrier solutions where cold temperatures or widely fluctuating day/night temperatures exist. In these areas consult your agricultural dealer, consultant, field advisor, or Nufarm representative for a specific guidance before using nitrogen fertilizer carrier solutions.

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

Do not use low rates of liquid fertilizer as a substitute for a surfactant.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

Tank Mixtures in Harvest Aid

A tank mix of this product plus 2,4-D and surfactant, or Credit 41 Extra / Credit Xtreme (glyphosate), will typically aid in dry down of many broadleaved weeds, thereby aiding grain harvest. Postemergence application should be made to actively growing weeds after the crop is in the hard dough stage. If weeds are not dry within 10 days after application, delay harvest until weeds are dry.

See weeds listed in the **WEEDS CONTROLLED** chart of this label.

With 2,4-D

Mix 1/10 ounce this product plus 1/4 to 1/2 pounds active ingredient 2,4-D per acre on moderate weed infestations; higher rates of 2,4-D may be used on large weeds if permitted by the 2,4-D product labeling. Include 1 to 2 quarts surfactant per 100 gallons, spray solution. In addition to the weeds listed in the **WEEDS CONTROLLED** chart of this label, the 2,4-D combination will also dry down common cocklebur, marehail, puncturevine and common and wild sunflower. In areas where 2,4-D use is restricted, apply this product with surfactant only; however, this treatment may be less effective.

With Credit 41 Extra or Credit Xtreme (glyphosate)

Use 1/10 ounce Patriot plus the labeled rate of Credit 41 Extra / Credit Xtreme / Razor Pro (see Credit 41 Extra / Credit Xtreme / Razor Pro label for maximum season rate). Use an adjuvant for optimum activity - consult the Credit 41 Extra / Credit Xtreme / Razor Pro label or local recommendations for the amount of adjuvant to include.

Tank Mixtures in Fallow

This product may be used as a fallow treatment and may be tank mixed with other herbicides that are registered for use in fallow. If the label instructions conflict with this label do not tank mix that product with this product. Read and follow all label instructions on timing precautions, restrictions and warnings for any companion products before using these tank mixtures. Follow the most restrictive labeling.

Tank Mixtures in Pasture or Rangeland

Apply a tank-mix combination with Trooper P+D, Trooper 22K, 2,4-D, Credit 41 Extra / Credit Xtreme or Weedmaster in states where these products are labeled for postemergence control of the following weeds:

Annual marshelder	Carolina Horsenettle	Giant ragweed
Burclover	Common milkweed	Prickly lettuce
Common cocklebur	Common ragweed	Western ragweed

For best results, apply this product at 1/10 to 2/10 ounce per acre with one of the following products:

Product	Rate (oz product/A)
Trooper P&D	8 to 32
Trooper 22K	4 to 16
Diablo	4 to 32
Weedmaster	8 to 32
Remedy	8
Amber	0.35*
2,4-D	8 to 16 (oz ai/A)

*For suppression of Ragweed in Phenoxy Restricted and Herbicide Regulated Counties.

With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used, as a carrier in place of water. Run a tank mix compatibility test before mixing in fertilizer solution.

First, slurry this product with water and then add to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Make sure agitator is running while this product is added. This mixture may result in temporary crop yellowing and stunting.

When using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/4 pint per 100 gals. of spray solution (0.03% v/v).

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or extension agent for specific instructions before adding an adjuvant to these tank mixtures.

When 2,4-D or MCPA is included with a fertilizer/Patriot mixture, ester formulations tend to be more compatible (see manufacturer's label). Do not add surfactant when using this product in tank mix with 2,4-D ester and liquid nitrogen fertilizer solutions.

Do not use low rates of liquid fertilizer as a substitute for a surfactant.

Do not use with liquid fertilizer solutions having a pH less than 3.0.

Tank Mixtures with MCPA, 2,4-D and/or Dicamba for Suppression of Winter Annual Broadleaf Weeds in Winter Wheat to be Grazed Out in the States of Texas, Oklahoma, New Mexico and Kansas

PRODUCT INFORMATION

Patriot may be tank mixed with MCPA, 2,4-D and/or dicamba for suppression of winter annual broadleaf weeds in winter wheat to be grazed out and not harvested for grain in the States of Texas, Oklahoma, New Mexico and Kansas.

DIRECTIONS FOR USE

For the suppression of winter annual broadleaf weeds (such as henbit and mustards) in winter wheat in the states of Texas, Oklahoma, New Mexico and Kansas, this product at 1/20 ounce per acre should be tank mixed with MCPA, 2,4-D and/or dicamba at label rates. Winter annual broadleaf weeds should be less than 1" tall or in the rosette stage for suppression. Add a Nufarm specified nonionic surfactant having at least 80% active ingredient at 1 to 2 quarts per 100 gallons of spray solution (0.25 to 0.5% v/v).

Rotational Intervals For Crops in Non-Irrigated Land Following Use of Patriot at 1/20 oz./A on Wheat That Will be Grazed Out

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
Sorghum, Grain	7.9 or lower	No restrictions	4
Cotton	7.9 or lower	No restrictions	10
Alfalfa	6.8 or lower 6.9 to 7.9	No restrictions No restrictions	10 22
Beans, Dry	6.8 or lower 6.9 to 7.9	No restrictions No restrictions	10 22

Rotation Intervals for crops not covered above following the use of this product at 1/20 ounce per acre on wheat that will be grazed out.

The minimum rotation interval is 22 months with at least 18" of cumulative precipitation during the period:

- To any crop not listed in the Rotation Intervals table above,
- If the soil pH is not in the specified range.

To rotate to a crop at an interval shorter than specified, a field bioassay must be successfully completed to rotate to that crop. See section on **Field Bioassay** for further information.

IMPORTANT RESTRICTIONS

This treatment is for use on winter wheat that will be grazed out and will not be harvested for grain.

IMPORTANT PRECAUTIONS

This product suppresses weeds by postemergence activity. For best results apply this product to young actively growing weeds. The degree and duration of suppression at 1/20 ounce per acre may depend upon the following factors:

- Weed spectrum and infestation,
- Intensity weed size at application, and
- Environmental condition at and following treatment.

CROP ROTATION

Before using this product, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your wheat, barley, triticale, fallow, pasture or rangeland acres at the same time.

Minimum Rotation Intervals Minimum rotation intervals* are determined by the rate of breakdown of Patriot. Breakdown in the soil is affected by soil pH, soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture speed breakdown in soil, with high soil pH, low soil temperature, and low soil moisture slow breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature and soil moisture can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture should be monitored closely when considering crop rotations.

*The minimum rotation interval represents the period of time from the last application to the earliest date of the next planting.

Soil pH Limitations

Do not use this product on soils having a pH above 7.9 as extended soil residual activity could require longer crop rotation intervals than normal. Under certain conditions, this product could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high pH soil can be extremely sensitive to low concentrations of Patriot.

Checking Soil pH

Before using this product, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0" to 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

Rotation Intervals for Cereals
All Areas-Following Use of Patriot at 1/10 oz. per Acre

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
Winter and spring wheat	7.9 or lower	No restrictions	1
Durum wheat, barley, spring/winter oat	7.9 or lower	No restrictions	10

Rotation Intervals For Crops in Non-Irrigated Land
Following Use of Patriot at 1/10 oz. per Acre on Wheat, Barley, Triticale or Pasture

Geographic Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
Colorado	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Sunflower, safflower	7.9 or lower	No restrictions	22
		Field Corn	7.9 or lower	No restrictions	12
		STS Soybeans	7.9 or lower	No restrictions	4
Idaho	Southern Idaho	Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
		Condiment mustard	7.3 or lower	10	10
		Condiment mustard	7.4 or higher	28	34
		Chickpeas	7.3 or lower	10	10
Chickpeas	7.4 or higher	28	34		

(continued)

Rotation Intervals For Crops in Non-Irrigated Land (continued)
 Following Use of Patriot at 1/10 oz. per Acre on Wheat, Barley, Triticale or Pasture

Geographic Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
Kansas	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
	Central and Western Kansas (W. of the Flinthills)	Field Corn	7.9 or lower	15	12
	Western Kansas W. of Hwy. 183	Soybeans	7.5 or lower	22	22
			7.6 to 7.9	33	34
	Central Kansas-Generally E. of Hwy 183 and W. of the Flinthills	Soybeans	7.5 or lower	22	22
STS Soybeans		7.9 or lower	15	4	
Montana	Statewide	Grain sorghum, Proso Millet, Field Corn	7.9 or lower	22	22
		Alfalfa Hay Only	7.6 to 7.9	No restrictions	34
			7.5 or lower	No restrictions	22
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
Nebraska	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
		STS Soybeans	7.9 or lower	No restrictions	4
	Generally W. of Hwy 77 and E. of the Panhandle	Field corn	7.9 or lower	15	22
		Soybeans	7.5 or lower	22	22
			7.6 to 7.9	33	34
New Mexico	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
		Cotton (dryland only)	7.9 or lower	30	22

(continued)

Rotation Intervals For Crops in Non-Irrigated Land (continued)
 Following Use of Patriot at 1/10 oz. per Acre on Wheat, Barley, Triticale or Pasture

Geographic Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
North Dakota	W. of Hwy. 1	Grain sorghum, Proso millet, Field corn, Dry Beans, Flax, Safflower, Soybean, Sunflower	7.9 or lower	22	22
	E. of Hwy. 1	Grain sorghum, Proso millet, Field corn, Dry Beans, Flax, Safflower, Soybean, Sunflower	7.9 or lower	34	34
Oklahoma	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
		Field corn	7.9 or lower	15	12
		STS Soybeans	7.9 or lower	No restrictions	4
Oregon	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
		Condiment mustard	7.3 or lower	10	10
		Condiment mustard	7.4 or higher	28	34
		Chickpeas	7.3 or lower	10	10
Chickpeas	7.4 or higher	28	34		
South Dakota	Statewide	Flax, Safflower, Soybean, Sunflower	7.9 or lower	No restrictions	22
	S. of Hwy. 212 & E. of Missouri River, & S. of Hwy. 34 & W. of Missouri River	Grain sorghum, Proso millet	7.9 or lower	13	12
	Generally E. of Missouri River, & S. of Hwy. 14 & W. of Missouri River	Field Corn	7.9 or lower	15	12

(continued)

Rotation Intervals For Crops in Non-Irrigated Land (continued)
Following Use of Patriot at 1/10 oz. per Acre on Wheat, Barley, Triticale or Pasture

Geographic Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
Texas	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Soybean, Sunflower	7.9 or lower	No restrictions	22
	Panhandle	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	30	22
	N. Central Texas*	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	25	14
*The counties of N. Central Texas are: Archer, Baylor, Bell, Bosque, Bowie, Callahan, Camp, Cass, Clay Collin, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Falls, Fannin, Foard, Franklin, Grayson, Hardeman, Haskell, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Knox, Lamar, Limestone, McLennan, Milam, Montague, Morris, Navarro, Palo Pinto, Parker, Rains, Red River, Robertson, Rockwall, Shackelford, Somervell, Stephens, Tarrant, Throckmorton, Titus, Upshur, Van Zandt, Wilbarger, Wichita, Williamson, Wise, Wood, Young.					
Utah	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
Washington	Statewide	Peas, Lentils, Canola	6.8 or lower	18	10
		Peas	6.9 to 7.9	18	15
		Lentils	6.9 to 7.9	18	34
		Canola	6.9 to 7.9	18	22
Wyoming	Statewide	Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
	Southern Wyoming	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
	Southern Wyoming (Goshen, Laramie and Platte counties only)	Field corn	7.9 or lower	15	12
	Northern Wyoming	Grain sorghum, Proso Millet, Field Corn	7.9 or lower	22	22

Rotation Intervals not covered above - The minimum rotation interval is 34 months with at least 28" of cumulative precipitation during the period:

- for any major field crop not listed (see the **Rotation Intervals** table);
- if the soil pH is not in the specified range;
- if the use rate applied is not specified in the table;
- or if the minimum cumulative precipitation has not occurred since application.

Before rotation to a major field crop at an interval shorter than specified, a field bioassay is required for that crop. A field bioassay is required before rotation to any minor crops (as determined by the USDA criteria). See section on **Field Bioassay** for further information.

Rotation Intervals in Pasture, Rangeland or CRP for Overseeding and Renovation
Minimum Rotation Intervals

Geographic Location	Crop / Grass	Maximum Rate Used (oz./A)	Minimum Rotation Interval (months)
AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV	Alfalfa, red clover, white clover, sweet clover, bermudagrass, bluegrass, ryegrass, tall fescue	1/10 to 3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Durum, barley, oats	1/10 to 3/10	10
All Other States	Red clover, white clover, sweet clover	1/10 to 2/10	12
	Bermudagrass, bluegrass, ryegrass	1/10 to 2/10	6
	Tall fescue	1/10 to 2/10	18
	Wheat (except durum)	1/10 to 2/10	1
	Durum, barley, oats	1/10 to 2/10	10
All Areas with Soil pH of 7.5 or Less	Russian wildrye	1/10 to 1/2	1
	Green needlegrass, switchgrass, sheep fescue	1/10 to 1	1
	Meadow brome, smooth brome, alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye, timothy	1/10 to 1	2
All Areas with Soil pH of 7.9 or Less	Alkali sacaton, mountain brome, blue grass thickspike wheatgrass	1/10 to 1	1
	Sideoats grama, switchgrass	1/10 to 1/2	2
	Western wheatgrass	1/10 to 1	2
	Sideoats grama, Switchgrass, big bluestem	1/10 to 1	3

Rotation Intervals not covered above - The minimum rotation interval for crops not listed is at least 34 months with at least 28" of cumulative precipitation during the period:

- for any major field crop not listed (see the **Rotation Intervals** table);
- if the soil pH is not in the specified range;
- if the use rate applied is not specified in the table

Before rotation to a major field crop at an interval shorter than specified, a field bioassay is required for that crop. A field bioassay is required to any minor crops (as determined by the USDA criteria). See section on **Field Bioassay** for further information.

BIOASSAY

A field bioassay is required before rotating to any crop not listed (see the **Rotation Intervals** table), or if the soil pH is outside the specified range, or if the use rate is outside those in the table, or if the minimum cumulative precipitation has not occurred since application.

Field Bioassay

To conduct a field bioassay, grow test strips of the crop(s) you plan to grow following treatment with this product. Crop response to the bioassay will indicate whether or not rotation to the crop(s) grown in the test strips is advisable.

If a field bioassay is planned, check with your local experts for information detailing the field bioassay procedure.

GRAZING

When Patriot is used at rates of 1-2/3 ounce per acre or less, there are no grazing or haying restrictions on this product.

Treated vegetation may be cut for forage or hay.

NON-AGRICULTURAL USES

WEEDS CONTROLLED

1/3 TO 1/2 OUNCE PER ACRE

Annual sowthistle	Common groundsel	Goldenrod	Smallseed falseflax
Aster	Common purslane	Lambsquarters	Smooth pigweed
Bahiagrass	Common yarrow	Marestail/horseweed ****	Sweet clover
Beebalm	Conical catchfly	Maximillion sunflower	Tansymustard
Bittercress	Corn cockle	Miners lettuce	Treacle mustard
Bitter sneezeweed	Cow cockle	Pennsylvania smartweed	Tumble mustard
Blackeyed-susan	Crown vetch	Plains coreopsis	Wild carrot
Blue mustard	Dandelion	Plantain	Wild garlic
Bur buttercup	Dogfennel	Redroot pigweed	Wild lettuce
Chicory	False chamomile	Redstem filaree	Wild mustard
Clover	Fiddleneck tarweed	Rough fleabane	Woolly croton
Cocklebur	Field pennycress	Shepherd's purse	Wood sorrel
Common chickweed	Flixweed	Silky crazyweed (locoweed)	Yankeweed

1/2 TO 1 OUNCE PER ACRE

Blackberry	Curly dock	Multiflora rose and other wild roses	Seaside arrowgrass
Black henbane	Dewberry	Musk thistle***	Sericea lespedeza
Broom snakeweed*	Dyer's woad	Oxeye daisy	Tansy ragwort
Buckhorn plantain	Gorse	Plumeless thistle	Teasel
Bull thistle	Halogeton	Prostrate knotweed	Wild caraway
Common crupina	Henbit	Rose ring gaillardia	
Common sunflower	Honeysuckle		

1 TO 2 OUNCES PER ACRE

Common mullein	Lupine	Purple scabious	Sulphur cinquefoil
Common tansy	Old world climbing fern (Lygodium)	Scotch thistle	Western salsify
Field bindweed**	Perennial pepperwood	Scouringrush	Whitetop (hoary cress)
Greasewood	Poison hemlock	Salsify	Wild iris
Gumweed	Purple loosestrife	Snowberry	
Houndstongue		St. Johnswort	

1 1/2 TO 2 OUNCES PER ACRE

Canada thistle**	Duncecap larkspur	Tail larkspur	Yellow toadflax**
Dalmation toadflax**	Russian knapweed**	Wild parsnip	

2 OUNCES PER ACRE

Onionweed

3 TO 4 OUNCES PER ACRE

Kudzu

* Apply fall through spring

** Suppression, which is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Apply as a full coverage spray for best performance.

*** Certain biotypes of musk thistle are more sensitive to this product and may be controlled with rates of 1/4 to 1/2 ounce per acre. Treatments of this product may be applied from rosette through bloom stages of development.

**** Certain biotypes of marestail/horsetail are less sensitive to this product and may be controlled by tank mixes with herbicides with a different mode of action.

Tank Mix Combinations for Problem Weed Control

For broader spectrum control and for use on certain biotypes of broadleaf weeds which may be resistant to this product and herbicides with the same mode of action, use the following tank mixes.

Diablo (dicamba) + 2,4-D

Kochia -

Combine 1/2 ounce of Patriot with 8 fluid ounces of dicamba and 16 fluid ounces of 2,4-D for the control of kochia.

Spotted knapweed -

Combine 1/2 ounce of Patriot with 8 ounces of dicamba and 16 fluid ounces of 2,4-D for the control of spotted knapweed.

Skeletonweed -

Combine 1 ounce of Patriot with 8 fluid ounces of dicamba and 16 fluid ounces of 2,4-D for the suppression of rush skeletonweed.

NONCROP (INDUSTRIAL) SITES

Application Information

Apply Patriot for general weed control on private, public and military lands as follows: Uncultivated areas (including airports, highway, railroad and utility rights-of-way, sewage disposal areas, etc.); uncultivated agricultural areas- noncrop producing (including farmyards, fuel storage areas, fence rows, soil bank land, barrier strips, etc.); industrial sites- outdoor (including lumberyards, pipeline and tank farms, etc.). It can also be used for the control of certain noxious and troublesome weeds.

Consult the **WEEDS CONTROLLED** Weeds Controlled and **BRUSH SPECIES CONTROLLED** tables to determine the appropriate application rate. Patriot may be applied in tank mixture with other herbicides labeled for use on non-crop sites. Fully read the labels and follow all directions and restrictions on each label.

This product may be applied in tank mixture with other herbicides labeled for use on non-crop sites. Fully read the labels and follow all the directions and restrictions on each label.

Applications may be made by ground or air. Use a sufficient volume of water to ensure thorough coverage of the target vegetation with the application equipment being used.

Application Timing

For best results, Patriot should be applied postemergence to young, actively growing weeds. Application may be made at any time of the year, except when the ground is frozen.

GRASS REPLANT INTERVALS

Following an application of Patriot to non-crop areas, the treated sites may be replanted with various species of grasses at the intervals listed below.

For soils with a pH of 7.5 or less, observe the following replant intervals:

Species	Rate (ounces per acre)	Replant Interval (months)
Brome, Meadow	1/2 - 1	2
	1 - 2	3
Brome, Smooth	1/2 - 1	2
	1 - 2	4
Fescue, Alta	1/2 - 1	2
	1 - 2	4
Fescue, Red	1/2 - 1	2
	1 - 2	4
Fescue, Sheep	1/2 - 1	1
	1 - 2	4
Foxtail, Meadow	1/2 - 1	2
	1 - 2	4
Green Needlegrass	1/2 - 2	1
Orchardgrass	1/2 - 1	2
	1 - 2	4
Russian wildrye	1/2 - 1	1
	1	2
	2	3
Switchgrass	1/2 - 1	1
	1 - 2	3
Timothy	1/2 - 1	2
	1 - 2	4
Wheatgrass, Western	1/2 - 1	2
	1 - 2	3

For soils with a pH of 7.5 or greater, observe the following replant intervals:

Species	Rate (ounces per acre)	Replant Interval (months)
Alkali Sacaton	1/2 - 1	1
	1 - 2	3
Bluestem, Big	1/2 - 2	3
Brome, Mountain	1/2 - 1	1
	1 - 2	2
Grama, Blue	1/2 - 2	1
Grama, Sideoats	1/2	2
	>1/2	>3
Switchgrass	1/2	2
	>1/2	>3
Wheatgrass, Thickspike	1/2 - 2	1
Wheatgrass, Western	1/2 - 1	2
	1 - 2	3

The specified intervals are for applications made in the Spring to early Summer. Because this product degrades slowly in cold or frozen soils, applications made in the late Summer or Fall should consider the intervals as beginning in the Spring following treatment.

Testing has indicated that there is considerable variation in response among the species of grasses when seeded into areas treated with this product. If species other than those listed above are to be planted into areas treated with this product, a field bioassay should be performed, or previous experience may be used, to determine the feasibility of replanting treated sites.

TURFGRASS, INDUSTRIAL (UNIMPROVED ONLY)

Application Information

Apply Patriot for selective weed control in unimproved industrial turfgrass where certain grasses are well established and desired as ground cover. Patriot also be used for the control of certain noxious and troublesome weeds in turfgrass.

In addition to conventional spray equipment, Patriot may also be applied with invert emulsion equipment. When using an invert emulsion, mix the prescribed rate of Patriot in the water phase.

Consult the **WEEDS CONTROLLED** table to determine which weeds will be controlled by the following rates:

Turfgrass type	Rate of Patriot (ounces/acre)
Fescue and Bluegrass	1/4 to 4/10
Crested Wheatgrass and Smooth Brome	1/4 to 1
Bermudagrass	1/4 to 2

Application Timing

Applications may be made at any time of the year, except when the soil is frozen.

When a spring application is made on fescue or bluegrass, a second application may be made during the summer after full seedhead maturation.

Growth Suppression and Seedhead Inhibition (Chemical Mowing)

Application Information

Apply Patriot for growth suppression and seedhead inhibition in well-established fescue and bluegrass turf at the use rate of 1/4 to 1/2 ounce per acre.

Tank Mix Combination

Patriot may be tank mixed with Nufarm T-Pac MEC Plant Growth Regulator or Embark for improved performance in the regulation of growth and seedhead suppression. Tank mix 1/4 to 1/2 ounce of Patriot with 2 to 4 ounces of Nufarm T-Pac MEC Plant Growth Regulator or Embark.

Application Timing

Application may be made after at least 2 to 3 inches of new growth has emerged until the appearance of the seed stalk.

Fescue Restrictions:

- Do not use more than 4/10 ounce of Patriot per acre
- Do not use a surfactant if liquid nitrogen is used as a carrier
- Do not use a spray adjuvant unless it is a non-ionic surfactant

Fescue Precautions:

This product may temporarily stunt tall fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:

- Use a tank mix with 2,4-D
- Use the lowest specified rate for the target weeds
- Use a non-ionic surfactant at ½ to 1 pint per 100 gallons of spray solution
- Make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall

Yields from the first cutting may be reduced.

IMPORTANT RESTRICTION-INDUSTRIAL TURF ONLY

- Do not use Patriot on bahiagrass.

IMPORTANT PRECAUTIONS-INDUSTRIAL TURF ONLY

- An application of Patriot may cause temporary discoloration (chlorosis) of the grasses. Use the lower specified rates for minimum discoloration.
- With fescue and bluegrass, sequential applications made during the same or consecutive growth periods (i.e. spring and fall) may result in excessive injury to turf.
- Excessive injury may result when Patriot is applied to turf that is under stress from drought, insects, disease, cold temperatures (winter injury) or poor fertility.

NATIVE GRASSES

Apply Patriot for weed control and suppression in the establishment and maintenance of native grasses. It may be used where blue grama, bluestems (big, little, plains, sand, ww spar) bromegrasses (meadow), buffalograss, green sprangletop, Indiangrass, kleingrass, lovegrasses (atherstone, sand, weeping, wilman), orchardgrass, sideoats grama, switchgrass (Blackwell), wheatgrass (bluebunch, intermediate, pubescent Siberian, slender, streamband, tall, thickspike, western), and Russian wildrye are established. It may also be applied over these species in the seedling stage, except for orchardgrass and Russian wildrye.

Application Information

Apply Patriot at the rate of 1/10 ounce per acre for the control and suppression* of bur buttercup (testiculate), common purslane, common sunflower*, cutleaf eveningprimrose*, flixweed*, lambsquarters* (common and slimleaf), maretail*, pigweed (redroot and tumble), snow speedwell, tansymustard* and tumble mustard (Jim Hill mustard).

*Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. Degree of suppression will vary with the size of weed and environmental conditions following treatment.

Application Timing

For established grasses, apply when weeds are in the seedling stage. For grasses in the seedling stage, apply preplant or preemergence where the soil (seed bed) has been cultivated.

IMPORTANT RESTRICTIONS - NATIVE GRASSES

- Do not apply to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease or insect damage as grass injury may result.
- For application to Native Grasses- there are no grazing or haying restrictions on this product.

IMPORTANT PRECAUTIONS - NATIVE GRASSES

- Grass species or varieties may differ in their response to this herbicide. Consult with your state experiment station, university, or extension agent or other local experts as to sensitivity to this herbicide. If inadequate information is available, limit the initial use of this product to a small area. The types of grass in a grass seed mixture will vary in tolerance to this product, so the grasses in the final stand may not reflect the same ratio as in the seed mix.
- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after this product application, temporary discoloration and/or grass injury may occur. Injury may result when this product is applied to grass that is stressed to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease, or insect damage as grass injury may result. Severe winter stress, drought, disease, or insect damage before or following application also may result in grass injury.

BRUSH CONTROL

Application Information

Apply Patriot for the control of undesirable brush growing in non-crop areas including grazed areas on these sites. Applications may be made by air, high volume ground application, low volume ground application and ultra-low volume ground application. Except as noted for multiflora rose, Patriot must be applied as a spray to the foliage.

The application volume required will vary with the height and density of the brush and the application equipment used. Generally, aerial applications will require 15 to 25 gallons of water per acre; high volume ground application will require 100 to 400 gallons of water per acre; low volume ground application will require 20 to 50 gallons of water per acre; and ultra-low volume ground application will require 10 to 20 gallons of water per acre.

Regardless of the application volume and equipment used, thorough coverage of the foliage is necessary to optimize results.

BRUSH SPECIES CONTROLLED

Species	High Volume Patriot Rate (ounces per 100 gallons)	Broadcast Patriot Rate (ounces per acre)
Ash	1 - 2	1 - 3
Aspen	1 - 2	1 - 3
Black locust	1 - 2	1 - 3
Blackberry	1 - 2	1 - 3
Camelthorn	1 - 2	1 - 3
Cherry	1 - 2	1 - 3
Cottonwood	1 - 2	2 - 3
Eastern red cedar	1 - 2	2 - 3
Elder	1 - 2	2 - 3
Elm	1 - 2	1 - 3
Firs	3	1 - 2
Hawthorn	1 - 2	1 - 3
Honeysuckle	1 - 2	1/2 - 1
Mulberry	1 - 2	2 - 3
Multiflora rose	1 - 2	1 - 3
Muscadine (wild grape)	1 - 2	2 - 3
Oaks	1 - 2	1 - 3
Ocean spray (<i>Holodiscus</i>)	1 - 2	2 - 3
Osage orange	1 - 2	2 - 3
Red maple	1 - 2	2 - 3
Salmonberry	1/2 - 1	1 - 3
Snowberry	1/2 - 1	1 - 3
Spruce (black and white)	3	2 - 3
Thimbleberry	1/2 - 1	1 - 3
Tree of heaven (<i>Ailanthus</i>)	1 - 2	1 - 2
Tulip tree (yellow poplar)	1/2 - 1	1 - 3
Wild roses	1/2 - 1	1 - 3
Willow	1/2 - 1	1 - 3

For low volume and ultra-low volume ground applications, mix 4 to 8 ounces of this product per 75 gallons of spray solution.

Application Timing

Make a foliar application of the specified rate of this product during the period of full leaf expansion in the spring until the development of full fall coloration on deciduous species to be controlled. Coniferous species may be treated at anytime during the growing season.

Spot Treatment

This product may be used for the control of many species of weeds including noxious/invasive weeds in certain established grasses growing on non-crop areas.

Refer to the **WEEDS CONTROLLED** section for a listing of susceptible weed species and the application rate per acre per the target weed.

Or, mix one gram of this product per one gallon of water along with a surfactant. Spray to the point of wetting the entire surface of the target weeds, approximately 40 gallons of solution per acre.

Tank Mix Combinations

This product may be tank mixed with any product labeled for non-crop brush control at the application rates specified on the companion product's label for the species specified on the product's companion label. Read and follow the label instructions of both products when tank mixing. Follow the most restrictive limitations of the products labels being tank mixed.

Accord

After consulting **BRUSH SPECIES CONTROLLED** table, tank mix the prescribed rate of Patriot with the rate of Accord indicated for the various application methods on the Accord label. Refer to the Accord label for list of species controlled.

Nufarm Polaris Herbicide (2 pounds per gallon active ingredient imazapyr)

Combine 1 to 2 ounces of this product with 1 to 4 pints of Nufarm Polaris (2 pounds per gallon imazapyr) per acre and apply as a broadcast spray. Aerial applications should use a minimum of 15 gallons per acre spray volume. In addition to species listed above controlled by this product, this combination controls black gum, hophornbeam, sassafras, sweetgum, Vaccinium species, dogwood, myrtle dahoon, hickories, and persimmon.

Tahoe 3A or Relegate (triclopyr)

After consulting the **BRUSH SPECIES CONTROLLED** table, tank mix the prescribed rate of Patriot with the rate of Tahoe 3A or Relegate indicated for the various application methods on the Tahoe 3A / Relegate label. Refer to the Tahoe 3A / Relegate label for list of species controlled.

KRENITE S

After consulting the **BRUSH SPECIES CONTROLLED** table, tank mix the prescribed rate of Patriot with the rate of KRENITE S indicated for the various application methods on the KRENITE S label. Refer to the KRENITE S label for list of species controlled.

Trooper 22K (picloram)

After consulting the **BRUSH SPECIES CONTROLLED** table, tank mix the prescribed rate of Patriot with the rate of Trooper 22K indicated for the various application methods on the Trooper 22K label. Refer to the Trooper 22K label for list of species controlled.

Trooper 22K is a restricted use pesticide.

Trooper 22K (2 pounds per gallon active ingredient picloram) + Nufarm Polaris Herbicide (2 pounds per gallon active ingredient imazapyr)

Combine 1 to 1-1/2 ounce of this product with 2 to 8 fluid ounces of Nufarm Polaris (2 pounds per gallon imazapyr) and 1 to 2 pints of Trooper 22K (2 pounds per gallon picloram) per 100 gallons of water. Apply as a high volume spray. This tank mix controls cherry, elms, box elder, maples, hackberry, redbud, ash, oaks (including shingle oak), black locust and sassafras.

Trooper 22K is a restricted use pesticide.

Spotgun Basal Soil Treatment

For control of multiflora rose, prepare a spray suspension of this product by mixing 1 ounce per gallon of water. Mix vigorously until this product is dispersed and agitate periodically while applying the spray suspension.

Apply the spray preparation with an exact delivery handgun applicator. Apply at the rate of 4 milliliters for each 2 feet of rose canopy diameter. Direct the treatment to the soil within 2 feet of stem union. When treating large plants and more than one delivery is required, make applications on opposite sides of the plant.

Applications should be made from early spring to summer.

IMPORTANT RESTRICTONS - NON-CROP BRUSH ONLY

- When using tank mixtures of this product with companion herbicides, read and follow all the use instructions, application rates, warnings and precautions appearing on the labels. Follow the most restrictive label instruction for each of the herbicides used.

STORAGE AND DISPOSAL

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

STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINER HANDLING:

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple 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 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, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

WARRANTY DISCLAIMER

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

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

RV052316

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All other trademarks are the property of their respective owners.

PREFER 90

NONIONIC SURFACTANT

PRINCIPAL FUNCTIONING AGENTS:

Nonionic surfactants and humectants	90.0%
CONSTITUENTS INEFFECTIVE AS SPRAY ADJUVANTS:	10.0%
TOTAL	100%

All ingredients are exempt from tolerance under 40 CFR 180.

KEEP OUT OF REACH OF CHILDREN CAUTION

Read Entire Label Before Using This Product
SHAKE WELL BEFORE USING

PRECAUTIONARY STATEMENTS

Causes moderate eye irritation. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse.

PN: 000-110910

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:

- Move person to fresh air.
- If a person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF IN EYES:

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

IF ON SKIN OR CLOTHING:

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

PERSONAL PROTECTIVE EQUIPMENT

Wear chemical-resistant gloves, long-sleeved shirt and long pants, shoes plus socks when mixing or applying this product.


**WEST
CENTRAL, Inc.**
World Class Solutions™

2700 Trott Ave. SW • P.O. Box 897 • Willmar, MN 56201
www.westcentralinc.com

GENERAL INFORMATION

PREFER 90 is an excellent quality, nonionic surfactant. **PREFER 90** can be used with most insecticides, fungicides, herbicides, acaricides, defoliants, desiccants and wettable powders to improve performance of the active spray ingredient by giving them more uniform distribution and better wetting of the plant surface. **PREFER 90** meets the requirements of most pesticide manufacturer's for a 90/10 surfactant.

DIRECTIONS FOR USE

<u>Applications</u>	<u>This Product per 100 Gallons of Mix</u>
Insecticides	3 to 8 fluid ounces
Fungicides	3 to 8 fluid ounces
Herbicides	1 to 4 pints
Acaricides	3 to 8 fluid ounces
Defoliants	1 to 2 pints
Desiccants	1 to 2 pints
Wettable powders	1 to 2 pints

Variations in conditions of use can cause some variation in the amount of this product required. The minimum required to give a smooth, uniform coverage usually gives the most effective results. Not for aquatic use.

MIXING INSTRUCTIONS

Follow the instructions on the pest control product manufacturer's label. If there are no specific instructions, add **PREFER 90** after the pest control product has been thoroughly mixed into the tank mix water and preferably after all products have been mixed into the tank.

STORAGE AND DISPOSAL

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

Store in a cool, dry place away from fire, flame or other sources of ignition.

DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Always dispose of all chemicals and materials according to all applicable regulations.

CONTAINER DISPOSAL: Triple rinse (or equivalent) during mixing and loading. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact our state and local ACRC recycler visit the ACRC web page at www.acrcycle.org. Decontaminated containers may also be disposed of in a sanitary landfill.

WARRANTY

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to the seller, and buyer assumes the risk of any such use.

SN: 000-111710

Specimen Label



GrazonNext[®] HL

SPECIALTY HERBICIDE

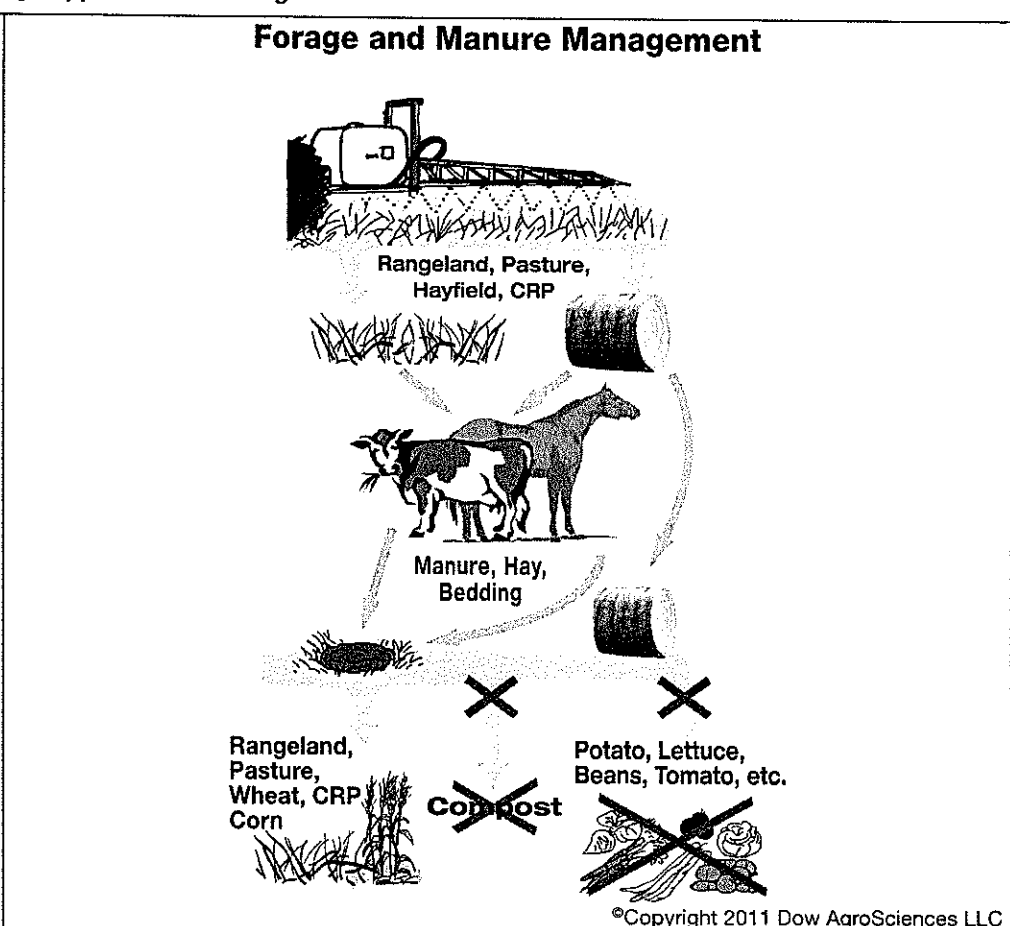
®Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

For control of broadleaf weeds and certain woody plants on rangeland, permanent grass pastures (including grasses grown for hay*), Conservation Reserve Program (CRP) acres, and wildlife management areas including seasonally dry flood plains, deltas, marshes, prairie potholes, or vernal pools in these sites.

*Hay from grass treated with GrazonNext HL within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling

IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section "*Restrictions in Hay or Manure Use*."
- It is mandatory to follow the "*Use Precautions and Restrictions*" section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions".
Call [1-(800) 263-1196] Customer Information Group.



Not For Sale, Distribution, or Use in New York State.
Not For Sale, Distribution, or Use in the San Luis Valley of Colorado.

Group	4	HERBICIDE
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Active Ingredient:

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro-	8.24%
Dimethyl amine salt of (2,4-dichlorophenoxy) acetic acid	41.26%
Other Ingredients	50.50%
Total	100.00%

Acid Equivalents:
aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) – 4.28% - 0.41 lb/gal (50 g/L)
2,4-D [(2,4-dichlorophenoxy) acetic acid] – 34.25% - 3.33 lb/gal (400 g/L)

Precautionary Statements

Hazard to Humans and Domestic Animals

EPA Reg. No. 62719-628

Keep Out of Reach of Children

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful if Swallowed
Do not get in eyes or on clothing.

Personal Protective Equipment (PPE)

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

- Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils, when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- Chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements

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

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)].

User Safety Recommendations

Users should:

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

First Aid

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

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

Environmental Hazards

This product is toxic to aquatic invertebrates and may be toxic to fish. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water. Take care to minimize the incidental overspray along the shoreline when applying to terrestrial plants at the water's edge or to water in areas where surface water is present. Do not apply directly to intertidal areas below the mean high water mark, except as permitted on this label. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

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

Directions for Use

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

Read all Directions for Use carefully before applying.

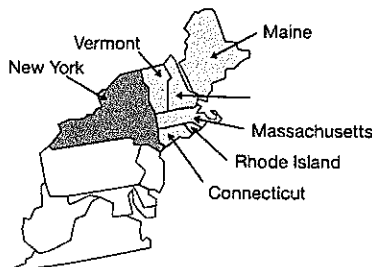
Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be

in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Not For Sale, Distribution, or Use in New York State.

Not For Sale, Distribution, or Use in the San Luis Valley of Colorado.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



Light grey = states where use in pastures is not permitted
Dark grey = NY where the product is not registered

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as natural rubber.
- Protective eyewear
- 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 enter or allow worker entry into treated areas until sprays have dried.

Storage and Disposal

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

Pesticide Storage: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized material prior to use.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Nonrefillable containers 5 gallons or less:

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

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow

Storage and Disposal (Cont.)

begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. 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.

Nonrefillable containers larger than 5 gallons:

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

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Product Information

GrazonNext® HL specialty herbicide controls broadleaf weeds and certain woody plants on rangeland, permanent grass pastures (including grasses grown for hay*), Conservation Reserve Program (CRP) acres, and wildlife management areas including seasonally dry flood plains, deltas, marshes, prairie potholes, or vernal pools in these sites.

***Hay from grass treated with GrazonNext HL within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling**

Resistance Management Guidelines

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, or CRP, since these sites receive infrequent pesticide applications.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its specified rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

Use Precautions

- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of GrazonNext HL. Injury to crops may result if treated soil and/or runoff water containing GrazonNext HL is washed, or moved onto land used to produce crops. Exposure to GrazonNext HL may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals.
- **Seeding grasses:**
 - **Preemergence:** Grasses may be reseeded in the fall following an application of GrazonNext HL applied in the spring or early summer.

- **Postemergence:** During the season of establishment, GrazonNext HL should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor). Most perennial grasses are tolerant to GrazonNext HL at this stage of development. GrazonNext HL may suppress certain established grasses, such as smooth bromegrass (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.

- **Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated starting a minimum of one year after herbicide application and following harvest of the treated crop. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions." Call (1-800-263-1196) for more information.

Pasture and Rangeland Restrictions

- **Do not use grasses treated with GrazonNext HL in the preceding 18-months for hay intended for export outside the United States.**
- **Hay from areas treated with GrazonNext HL in the preceding 18-months CANNOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.**
- **Hay from areas treated with GrazonNext HL in the preceding 18-months CANNOT be used for silage, haylage, baylage and green chop unless allowed by supplemental labeling.**
- **Do not move hay made from grass treated with GrazonNext HL within the preceding 18-months off farm unless allowed by supplemental labeling.**
- **Do not use hay or straw from areas treated with GrazonNext HL within the preceding 18-months or manure from animals feeding on hay treated with GrazonNext HL in compost.**
- **Do not use grasses treated with GrazonNext HL in the preceding 18-months for seed production.**

Restrictions for All Uses

- This product is not intended for reformulation or repackaging into other end-use products.
- Do not treat frozen soil where runoff could damage sensitive plants.
- **Maximum seasonal rate:** Apply no more than 2.1 pints (34 fl oz) (0.87 lbs acid equivalent 2,4-D) per acre per use season.
- Use 2 or more gallons of spray solution per acre
- Do not make more than two applications per year
- Do not apply within 30 days of previous application
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable
- **Maximum Application Rate:** Do not broadcast apply more than 2.1 pints (34 fl oz) per acre of GrazonNext HL per year. The total amount of GrazonNext HL applied broadcast, as a re-treatment, and/or spot treatment per year must not exceed 2.1 pints (34 fluid oz) per acre. Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 pints (68 fluid oz) per acre of GrazonNext HL per annual growing season; however, not more than 50% of an acre may be treated at that rate.
- **Grazing and Haying Restrictions:** Do not harvest forage for hay within 7 days of GrazonNext HL application. Cutting hay too soon after spraying weeds can compromise the weed control. Wait 14 days prior to cutting grass hay to allow for maximum herbicide activity.

- **Do not use this product for impregnation on dry fertilizer, unless specified in a Dow AgroSciences state specific product bulletin.**
- Do not apply this product on lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- **Transfer of Animals Feeding on GrazonNext HL Treated Forage:** Do not transfer animals grazing or feeding on hay to areas where sensitive broadleaf crop occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- **Restrictions in Hay or Manure Use:**
 - Do not use aminopyralid-treated plant residues, including hay or straw from areas treated within the preceding 18-months, in compost, mulch or mushroom spawn.
 - Do not use manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost, mulch or mushroom spawn.
 - Do not spread manure from animals that have grazed or consumed forage or hay from treated areas within the previous 3 days on land used for growing broadleaf crops.
 - Manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, wheat and corn.
 - Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields treated in the previous year with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid residues in the soil is at level that is not injurious to the crop to be planted.
 - To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be accelerated by supplemental irrigation.
- **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Seeding Legumes:** Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid residues remaining in the soil will adversely affect the legume establishment.
- **Crop Rotation:** Do not rotate to cropland for one year following an application of GrazonNext HL. Cereals and corn can be planted one year after treatment. Most broadleaf crops are more sensitive and can require at least 2 years depending on the crop and environmental conditions. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.
- **GrazonNext HL is highly active against many broadleaf plant species.** Do not use this product on areas where loss of desirable broadleaf forage plants, including legumes, cannot be tolerated.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of GrazonNext HL through movement into the soil. Do not apply GrazonNext HL within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.

Spray Drift Management

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may seriously injure crops. This product should be applied only 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 and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas). A drift control aid may be added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

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

Droplet Size

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

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

Wind Speed

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

Temperature Inversions

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

Susceptible Plants

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

Other State and Local Requirements

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

Equipment

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

Aerial Application

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

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

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

Ground Boom Application

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

Restrictions for Non-Irrigation Canal Ditchbank Application and Terrestrial Weeds near and up to the Water's Edge

Use Rate Restrictions:

Limited to 2 applications per year
Minimum of 30 days between applications
Maximum of 2.1 pints (34 fluid oz)(0.87 lbs ae)/acre per broadcast application.

Do not apply more than 2.1 pints (34 fluid oz) per acre per year.

Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 pints (68 fluid oz) of GrazonNext HL (1.75 lbs acid equivalent) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate.

Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula

below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance.

Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times

and use the average to calculate CFS.

Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

For ditchbank weeds:

Do not allow boom spray to be directed onto water surface.
Do not spray across stream to opposite bank.

For shoreline weeds:

Allow no more than 2 foot overspray onto water.

Sprayer Clean-Out Instructions

It is recommended that separate spray equipment be used on highly sensitive crops such as tobacco, soybeans, peanuts, and tomatoes.

Do not use spray equipment used to apply GrazonNext HL for other applications to land planted to, or to be planted to, crops or desirable sensitive plants, unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply GrazonNext HL should be thoroughly cleaned before reusing to apply any other chemicals as follows.

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water away from water supplies.
2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Spray nozzles and screens should be removed and cleaned separately.

Application Methods

Apply the specified rate of GrazonNext HL as a coarse low-pressure spray. **Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce weed control and increase spray drift potential.**

Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as specified by the surfactant label.

Ground Broadcast Application: Higher spray volumes (greater than 10 gallons per acre) generally provides better coverage and better control, particularly in dense and/or tall foliage.

Aerial Broadcast Application: Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to a maximum of 2.1 pints (34 fl oz) per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

Spot Application: Spot treatments may be applied at rates equivalent to broadcast-applied rate of up to a maximum of 4.2 pints (68 fl oz) on 50% of the treated field. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage. Repeat treatments may be made, but the total amount of GrazonNext HL applied must not exceed 2.1 pints (34 fl oz) per acre per year (see comments in the Use Precautions and Restrictions section above on Maximum Application Rate).

Table 1: Amount of GrazonNext HL herbicide (in fl oz) to mix in 3 gallon of water

GPA	GrazonNext HL Amount (In fluid oz) To Mix In 3 Gal Of Water With Various Application Rates		
	19 fl oz/A	24 fl oz/A	34 fl oz/A
20	2.9	3.6	5.1
30	1.9	2.4	3.4
40	1.4	1.8	2.6
50	1.1	1.4	2.0
60	1.0	1.2	1.7
70	0.8	1.0	1.4
80	0.7	0.9	1.3
90	0.6	0.8	1.1
100	0.6	0.7	1.0

Table 2: Application rates in the table below are based on treating an area of 1000 sq ft. An area of 1000 sq ft is about 10.5 by 10.5 yards in size. Mix the amount of GrazonNext HL (fl oz or milliliters) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1000 sq ft. A delivery volume of 0.5 gallons per 1000 sq ft is equivalent to 22 gallons per acre and 2.5 gallons per 1000 sq ft is equivalent to 109 gallons per acre.

Amount of GrazonNext HL per 1000 sq ft to Equal Broadcast Rate			
Broadcast Rate		Amount of GrazonNext HL per 1000 sq ft	
(fl oz/acre)	(pt/acre)	(fl oz)	(mL)
19	1.2	0.44	13
24	1.5	0.55	16
34	2.1	0.78	23

Note: 1 mL = 1cc and 1 fluid ounce (fl oz) = 29.6 milliliters (mL) = 2 tablespoons = 6 teaspoons

To calculate the amount of GrazonNext HL for areas larger than 1000 sq ft: Multiply the table value (fl oz or milliliters) by the area to be treated in "thousands" of square feet. For example, if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500 sq ft divided by 1000 sq ft = 3.5).

Mixing Instructions**Mixing with Water**

To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the specified amount of GrazonNext HL and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labeled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active ingredient) at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty plant surfaces) or when weeds are heavily pubescent or more mature.

Tank Mixing with Other Herbicides

GrazonNext HL at rates of up to 2.1 pints (34 fl oz) per acre may be mixed with labeled rates of other labeled herbicides (such as triclopyr [Remedy® Ultra and PastureGard®], clopyralid [Reclaim®], or picloram [Surmount®, Tordon® 22K]) to broaden the spectrum of weeds and brush controlled or to improve control of certain weeds. GrazonNext HL may be applied in tank mix combination with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products, and (3) that the tank mix combination is physically compatible (see tank mix compatibility testing below). When tank mixing, use only in accordance with the restrictions, precautions and limitations on the respective product labels

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Do not exceed specified application rates. If products containing the same active ingredient are mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mixing Precautions:

- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See Sprayer Clean-Out instructions.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of GrazonNext HL and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 1/2 hour or, if

separation occurs, should readily mix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility agent may resolve mix incompatibility.

Mixing with Sprayable Liquid Fertilizer Solutions

GrazonNext HL is usually compatible with liquid fertilizer solutions. It is anticipated that GrazonNext HL will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to large scale batch mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank. Use of a compatibility agent could be used to help obtain and maintain a uniform spray solution during mixing and application. When mixing GrazonNext HL in liquid fertilizer, mix GrazonNext HL in water (in a 1:1 ratio at the minimum) and add to the spray tank first, then add the liquid fertilizer to the spray tank. **Note:** The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. **Mixing GrazonNext HL in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test.** Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

Suggested Mixing Procedure:

1. With continuous vigorous agitation dilute herbicide with water (1 part herbicide to 2 parts water) before adding to liquid nitrogen fertilizer solution.
2. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.
3. Application during very cold (near freezing) weather is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.
4. Do not store the spray mixture.

Note: Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

Use Rates and Timing

Do not use GrazonNext HL if loss of legumes species or other broadleaf species cannot be tolerated.

GrazonNext HL may be applied postemergence as a broadcast spray or as a spot application to control weeds listed on this label; weeds other than those listed may also be controlled by this herbicide. When a rate range is given, use a higher rate in the range to control weeds at advanced growth stages or under less-than-favorable growing conditions (e.g., drought stress) or for longer residual control. Best weed control

results are obtained when spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 7 days following application.

For most species, 2 hours between application and rainfall provides a sufficient amount of time to avoid loss in weed control due to herbicide wash-off of the treated foliage.

GrazonNext HL also provides preemergence control of germinating seeds or emerging seedlings of susceptible weeds and re-growth of certain perennial weeds following application. Weed establishment following GrazonNext HL application will depend upon application rate, season of application, and growing condition.

GrazonNext HL can provide long-term control of weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term broadleaf weed control is most effective where forage grasses are allowed to recover from overgrazing, drought, etc., and compete with weeds.

GrazonNext HL can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by GrazonNext HL, it is important that vegetation management practices, including grazing management, biological control agents, replanting, fertilization, prescribed fire, reseeding with desirable plants, etc., be used to increase the competitiveness of desired forages. Used as part of an integrated management program, GrazonNext HL can serve as a catalyst for rapid improvement of rangeland, permanent grass pasture, and CRP by alleviating the adverse competitive effect of weeds on the yield and quality of forages and other desirable plant species. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management systems.

Broadleaf Weeds Controlled

Early to mid-spring applications. GrazonNext HL can be applied at rates between 0.8 and 1.2 pints (13 to 19 fluid oz) product per acre in early to mid-spring when weeds are less than 2 inches tall; applications in this rate range are most effective when conditions are favorable for plant growth.

The following weeds will be controlled at 1.2 to 2.1 pints (19 to 34 fluid oz) product per acre. For best results, apply when weeds are actively growing and conditions are favorable for plant growth. Use a higher rate in the rate range when growing conditions are less than favorable, when weeds are mature, when weed foliage is tall and dense or when residual control is important. GrazonNext HL also provides preemergence control of germinating seeds or seedlings of susceptible weeds that emerge following application. Increasing application rate to the high end of the rate range specified will extend period of residual control.

Table 3: Broadleaf Weeds Controlled

Weed Species			
Common Name	Scientific Name	Life Cycle ^c	Plant Family
Rate Range: 1.2 to 1.5 pints (19 to 24 fluid oz) product per acre			
Bedstraw	<i>Galium spp.</i>	perennial	Rubiaceae
bedstraw, smooth	<i>Galium mollugo</i>	perennial	Rubiaceae
broomweed, annual ^a	<i>Amphiachyris dracunculoides</i>	annual	Asteraceae
carrot, wild ^a	<i>Daucus carota</i>	biennial	Apiaceae
Cinquefoil, hoary	<i>Potentilla argentea</i>	perennial	Rosaceae
cinquefoil, sulfur ^{a,b}	<i>Potentilla recta</i>	perennial	Rosaceae
clover, sweet	<i>Melilotus officinalis</i>	biennial	Fabaceae
clover, white	<i>Trifolium repens</i>	perennial	Fabaceae
cocklebur ^a	<i>Xanthium strumarium</i>	annual	Asteraceae
croton, woolly ^{a,b}	<i>Croton capitatus</i>	annual	Euphorbiaceae
crownvetch ^a	<i>Securigera varia</i>	perennial	Fabaceae
daisy, oxeye ^{a,b}	<i>Leucanthemum vulgare</i>	perennial	Asteraceae
false dandelion, Carolina ^a	<i>Pyrrhopappus carolinianus</i>	annual/biennial	Asteraceae
fleabane, annual ^a	<i>Erigeron annuus</i>	annual	Asteraceae
horsenettle, Carolina ^{a,b}	<i>Solanum carolinense</i>	perennial	Solanaceae
lettuce, prickly ^a	<i>Lactuca serriola</i>	annual	Asteraceae
pokeweed, common	<i>Phytolacca americana</i>	perennial	Phytolaccaceae
ragweed, common ^{a,b}	<i>Ambrosia artemisiifolia</i>	annual	Asteraceae

Table 3: Broadleaf Weeds Controlled (Cont.)

Weed Species			
Common Name	Scientific Name	Life Cycle ^c	Plant Family
Rate Range: 1.2 to 1.5 pints (19 to 24 fluid oz) product per acre (Cont.)			
ragweed, western	<i>Ambrosia psilostachya</i>	perennial	Asteraceae
ragwort, tansy ^{a,c}	<i>Senecio jacobaea</i>	perennial	Asteraceae
sneezeweed, bittera	<i>Helenium amarum</i>	annual	Asteraceae
starthistle, yellow ^{a,c}	<i>Centaurea solstitialis</i>	annual	Asteraceae
thistle, bull ^{a,b}	<i>Cirsium vulgare</i>	biennial	Asteraceae
thistle, musk ^{a,b}	<i>Carduus nutans</i>	biennial	Asteraceae
thistle, plumeless ^{a,b}	<i>Carduus acanthoides</i>	biennial	Asteraceae
vervain, blue ^a	<i>Verbena hastata</i>	perennial	Asteraceae
vervain, hoary ^a	<i>Verbena stricta</i>	perennial	Asteraceae
vetch, common ^a	<i>Vicia sativa</i>	annual	Fabaceae
woodsorrel, yellow ^a	<i>Oxalis stricta</i>	perennial	Oxalidaceae
wormwood, absinth ^{a,b}	<i>Artemisia absinthium</i>	perennial	Asteraceae
Rate Range: 1.5 to 2.1 pints (24 to 34 fluid oz) product per acre			
acacia spp. ^{a,t}	<i>Acacia sp.</i>	perennial	Fabaceae
actinomeris, wingstem	<i>Verbesina alternifolia</i>	perennial	Asteraceae
Beebalm, pony ^{a,b} (horse mint)	<i>Monarda pectinata</i>	annual	Lamiaceae
blackberry spp. ^{a,t}	<i>Rubus sp.</i>	perennial	Rosaceae
Blackbrush ^{a,t}	<i>Acacia rigidula</i>	perennial	Fabaceae
bullnettle, Texas ^f	<i>Cnidioscolus texanus</i>	perennial	Euphorbiaceae
amaranth, spiny ^a	<i>Amaranthus spinosus</i>	annual	Amaranthaceae
burdock, common ^{a,b}	<i>Arctium minus</i>	biennial	Asteraceae
buttercup, hairy ^a	<i>Ranunculus sardous</i>	perennial	Ranunculaceae
buttercup, tall ^{a,b}	<i>Ranunculus acris</i>	perennial	Ranunculaceae
camphorweed ^a	<i>Heterotheca subaxillaris</i>	annual	Asteraceae
chickweed, common ^a	<i>Stellaria media</i>	annual	Caryophyllaceae
chicory ^a	<i>Cichorium intybus</i>	perennial	Asteraceae
Coneflower, upright prairie ^a	<i>Ratibida columnifera</i>	perennial	Asteraceae
cudweed, purple	<i>Gnaphalium purpureum</i>	annual	Asteraceae
dandelion, common ^a	<i>Taraxacum officinale</i>	perennial	Asteraceae
dock, broadleaf ^a	<i>Rumex obtusifolius</i>	perennial	Polygonaceae
dock, curly ^a	<i>Rumex crispus</i>	perennial	Polygonaceae
dogfennel ^c	<i>Eupatorium capillifolium</i>	perennial	Asteraceae
evening primrose, cutleaf ^a	<i>Oenothera laciniata</i>	annual	Asteraceae
false dandelion, Carolina ^a	<i>Tragopogon dubius</i>	biennial	Asteraceae
fiddleneck, common	<i>Amsinckia intermedia</i>	annual	Boraginaceae
fireweed	<i>Epilobium angustifolium</i>	perennial	Onagraceae
fleabane, annual ^a	<i>Erigeron annuus</i>	annual	Asteraceae
goldenrod, Canada ^a	<i>Solidago canadensis</i>	perennial	Asteraceae
goldenrod, Missouri ^a	<i>Solidago missouriensis</i>	perennial	Asteraceae
goldenrod, rigid	<i>Solidago rigida</i>	perennial	Asteraceae
gumweed, curlycup	<i>Grindelia squarrosa</i>	biennial	Asteraceae
hawkweed, yellow ^{a,b}	<i>Hieracium pratense</i>	perennial	Asteraceae
henbit ^a	<i>Lamium amplexicaule</i>	annual/biennial	Lamiaceae
honeylocust	<i>Gleditsia triacanthos</i>	perennial	Fabaceae
horehound ^t	<i>Marrubium vulgare L.</i>	perennial	Lamiaceae
horseweed ^a	<i>Conyza canadensis</i>	annual	Asteraceae
Huisache ^{a,t}	<i>Acacia farnesiana</i>	perennial	Fabaceae
indigo, blue	<i>Baptisia australis</i>	perennial	Fabaceae
ironweed, tall	<i>Vernonia gigantea</i>	perennial	Asteraceae
ironweed, western	<i>Vernonia baldwinii</i>	perennial	Asteraceae
knapweed	<i>Centaurea sp.</i>	biennial	Asteraceae
kudzu ^{a,b}	<i>Pueraria montana</i>	perennial	Fabaceae
lambsquarters, common ^a	<i>Chenopodium album</i>	annual	Chenopodiaceae
lespedeza, annual	<i>Lespedeza striata</i>	annual	Fabaceae
Locust, black	<i>Robinia pseudoacacia</i>	perennial	Fabaceae
marshelder, annual ^a	<i>Iva annua</i>	annual	Asteraceae

Table 3: Broadleaf Weeds Controlled (Cont.)

Weed Species			
Common Name	Scientific Name	Life Cycle ^c	Plant Family
Rate Range: 1.5 to 2.1 pints (24 to 34 fluid oz) product per acre (Cont.)			
mayweed, scentless ^a	<i>Tripleurospermum perforate</i>	annual	Asteraceae
mayweed, stinking ^{a,b}	<i>Anthemis cotula</i>	annual	Asteraceae
medic, black ^a	<i>Medicago lupulina</i>	perennial	Fabaceae
mesquite, honey ^{a,†}	<i>Prosopis glandulosa</i>	perennial	Fabaceae
Mexican-tea	<i>Dysphania ambrosioides</i>	annual/ perennial	Chenopodiaceae
mullein ^e	<i>Verbascum spp.</i>	biennial	Scrophulariaceae
Nightshade, silverleaf ^f	<i>Solanum elaeagnifolium</i>	perennial	Solanaceae
partridgepea ^a	<i>Chamaecrista fasciculata</i>	annual	Fabaceae
plantain, broadleaf ^a	<i>Plantago major</i>	perennial	Plantaginaceae
plantain, buckhorn ^a	<i>Plantago lanceolata</i>	perennial	Plantaginaceae
pricklyash, lime [†]	<i>Zanthoxylum fagara</i>	perennial	Fabaceae
ragweed, false	<i>Parthenium hysterophorus</i>	annual	Asteraceae
Rose, Macartney [†]	<i>Rosa bracteata</i>	perennial	Fabaceae
rose, multiflora ^g	<i>Rosa multiflora</i>	perennial	Rosaceae
sicklepod ^a	<i>Senna obtusifolia</i>	annual	Fabaceae
sida, prickly [†]	<i>Sida spinosa</i>	annual	Malvaceae
smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	annual	Polygonaceae
snow-on-the-mountain [†]	<i>Euphorbia marginata Pursh</i>	annual	Euphorbiaceae
soda apple, tropical ^{a,b}	<i>Solanum viarum</i>	perennial	Solanaceae
sowthistle, perennial ^{a,b}	<i>Sonchus arvensis</i>	perennial	Asteraceae
sowthistle, prickly ^a	<i>Sonchus asper</i>	annual	Asteraceae
Spanish needles	<i>Bidens bipinnata</i>	annual	Asteraceae
sumac, smooth	<i>Rosa glabra</i>	perennial	Anacardiaceae
sunflower, common ^a	<i>Helianthus annua</i>	annual	Asteraceae
tallow tree, Chinese ^{a,†}	<i>Triadica loureiro</i>	perennial	Euphorbiaceae
Teasel ^a	<i>Dipsacus spp.</i>	biennial	Dipsacaceae
thistle, Canada ^{a,b}	<i>Cirsium arvense</i>	perennial	Asteraceae
thistle, scotch	<i>Onopordum acanthium</i>	biennial	Asteraceae
yarrow, common ^a	<i>Achillea millefolium</i>	perennial	Asteraceae

^aThese plants are indicated to be invasive in the USDA-NRCS, PLANTS Database (<http://plants.usda.gov/index.html>).

^bPlants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, <http://plants.usda.gov/index.html>).

^cSpot treatment at rates up to 4.2 pints (68 fl oz) per acre of GrazonNext HL may be particularly effective against dense patches of perennial broadleaf plants.

^d apply during rosette stage

^esee specific use directions below for multiflora rose.

^fapply at flowering stage

^gapply when actively growing before flowering

[†]Suppression only

Specific Use Directions

Multiflora rose, individual plant treatment - Use 2.1 pints (34 fluid oz) of GrazonNext HL in 100 gal of water with 2 pints (32 fluid oz) or 0.25% v/v of a non-ionic surfactant. Or, 1.5 pints (24 fluid oz) of GrazonNext HL can be tank mixed with the appropriately labeled amount of triclopyr [Remedy Ultra]. Apply from full leaf through flowering. For best results, delay treatment for 9-12 months after mowing. Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 pints (68 fluid oz) of GrazonNext HL per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate.

Multiflora rose, broadcast treatment: 1.5 to 2.1 pints (24 to 34 fluid oz) per acre of GrazonNext HL can be tank mixed with the appropriately labeled amount of triclopyr [Remedy Ultra] per acre. Apply from full leaf through flowering. For best results, delay treatment for 9-12 months after mowing.

Control of Terrestrial Weeds near and up to the Water's Edge

GrazonNext HL can be used to treat terrestrial weeds that extend up to the water's edge. **Do not apply directly to water.** This product must not be used to treat vegetation standing in the water. When controlling terrestrial weed species near and up to the water's edge, take precautions to minimize incidental overspray to the adjacent water. Consult local public water control authorities before applying this product near public waters. Permits may be required to treat such areas. Apply the specified rate, listed in Table 2, of GrazonNext HL as a coarse low-pressure spray as ground broadcast or spot applications. Do not apply aerially for control

of weeds growing at or near the water's edge. Spray volume should be sufficient to uniformly cover foliage. Increase the spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. It is also permissible to treat target weeds within dry non-irrigation ditches and seasonally dry transitional areas between upland and lowland sites (such as flood plains, deltas, marshes, prairie potholes or vernal pools), but only at times when those sites are dry and are forecasted or managed by water control systems to remain dry for at least 2 weeks following application.

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Revisions:

1. Added the following restriction: Not For Sale, Distribution, or Use in the San Luis Valley of Colorado
2. Under Personal Protective Equipment (PPE), added list of chemical resistant gloves.
3. Added the following to the use site list in description: "including seasonally dry flood plains, deltas, marshes, prairie potholes, or vernal pools"
4. Relocated section for Spray Drift Management to section for Restrictions for All Uses.
5. Relocated section for Non-Cropland and Natural Areas and updated restrictions.
6. Updated title for the section Restrictions for Non-Irrigation Canal Ditchbank Application by adding "and Terrestrial Weeds and up to the Water's Edge" plus updated restrictions.
7. Added the following section: Control of Terrestrial Weeds at the Water's Edge