



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

August 28, 2024

Nikki Benson
Regulatory Specialist
Nufarm Americas Inc.
11901 S. Austin Ave.
Alsip, IL 60803

Subject: Label Amendment - Registration Review Mitigation for Metsulfuron-methyl
Product Name: Patriot Selective Herbicide
EPA Registration Number: 228-391
Application Date: January 23, 2024
Decision Number: 594965

Dear Nikki Benson:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metsulfuron-methyl Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must

submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr by phone at (202) 566-0636, or via email at carr.caleb@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

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
EPA EST. NO.

MANUFACTURED FOR
NUFARM AMERICAS INC.
11901 S. AUSTIN AVE.
ALSIP, IL 60803



NET WEIGHT: _____ LBS (_____ Kg)

000228-00391.20240821

ACCEPTED

Aug 28, 2024

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. **228-391**

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 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.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION - PRECAUTION

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

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

Groundwater Advisory: Metsulfuron-methyl is known to leach through soil into groundwater under certain

conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of metsulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Non-target Organism Advisory: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

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.

WINDBLOWN SOIL PARTICLES

Patriot Herbicide has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying Patriot Herbicide if prevailing local conditions may be expected to result in off-site movement.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S641).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S641).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASAE S572.3).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASAE S572.3).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ASAE S572.3) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

WEED RESISTANCE MANAGEMENT

For resistance management, Patriot Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Patriot Herbicide and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

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 delay herbicide resistance take one or more of the following steps:

- Rotate the use of Patriot Herbicide or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- [For further information or to report suspected resistance, contact [Nufarm contact] at [one of][any of] the following] [[[X]-XXX-XXX-XXXX] [[,][or]] 1-800-345-3330 [[,][or]] [Nufarm e-mail address] [[,][or]] [Nufarm website] [[,][or]][XXXX]].]

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. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. Do not assume that each listed weed is being controlled by this mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

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.

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 dahoon, 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, dog-wood, 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 dahoon, 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 of 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 of 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, brome grass, 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, brome grass, 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 91/16 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
Filaree	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.

Woolly 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 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 product 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
Sorghum, Grain	7.9 or lower	No restrictions	4
Cotton	7.9 or lower	No restrictions	10
Alfalfa	6.8 or lower	No restrictions	10
	6.9 to 7.9	No restrictions	22
Beans, Dry	6.8 or lower	No restrictions	10
	6.9 to 7.9	No restrictions	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 are 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
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,	7.9 or lower	22	22

		Field Corn			
		Alfalfa	7.6 to 7.9	No restrictions	34
		Hay Only	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 7.6 to 7.9	22 33	22 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
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
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
	Alkali sacaton, mountain brome, blue grass thickspike wheatgrass	1/10 to 1	1
All Areas with Soil pH of 7.9 or Less	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	Goldenrod
Aster	Lambsquarters
Bahiagrass	Marestail/horseweed ****
Beebalm	Maximillion sunflower
Bittercress	Miners lettuce
Bitter sneezeweed	Pennsylvania smartweed
Blackeyed-susan	Plains coreopsis
Blue mustard	Plantain
Bur buttercup	Redroot pigweed
Chicory	Redstem filaree
Clover	Rough fleabane
Cocklebur	Shepherd's purse
Common chickweed	Silky crazyweed (locoweed)
Common groundsel	Smallseed falseflax
Common purslane	Smooth pigweed
Common yarrow	Sweet clover
Conical catchfly	Tansymustard
Corn cockle	Treacle mustard
Cow cockle	Tumble mustard
Crown vetch	Wild carrot
Dandelion	Wild garlic
Dogfennel	Wild lettuce
False chamomile	Wild mustard
Fiddleneck tarweed	Wooly croton
Field pennycress	Wood sorrel
Flixweed	Yankeweed

1/2 TO 1 OUNCE PER ACRE

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

Henbit

1 TO 2 OUNCES PER ACRE

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

1 1/2 TO 2 OUNCES PER ACRE

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

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 maretail/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 1 - 2	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 % 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.

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