



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

71368-35

Date of Issuance:

AUG 26 2010

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

Term of Issuance:

Name of Pesticide Product:

Recoil Broad Spectrum
Herbicide

Name and Address of Registrant (include ZIP Code):

Nufarm Americas Inc.
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

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

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

This product is reregistered in accordance with FIFRA provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

Kathryn Montague
Team Leader
Herbicide Branch, Team 23
Registration Division (7505P)

Date:

AUG 26 2010

2) Based on toxicity ranking per the acute toxicity review, the First Aid statements should be placed on the label in the following order:

“IF IN EYES...
IF SWALLOWED...
IF ON SKIN OR CLOTHING...”

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

“Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. **Avoid contact with skin.** Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.”

4) Per the acute toxicity review and the RED, the PPE section must be revised to read:

“Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators, flaggers and other handlers must wear:
Long-sleeved shirt and long pants,
Shoes and socks,
Goggles or faceshield (except for pilots),
Chemical-resistant gloves (except for pilots),
Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.”

5) The following Engineering Control text must be added to the label:

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

Note: The mechanical transfer engineering controls text is no longer needed and should be deleted from the label.

6) Per the acute toxicity review, the text in bold type must be added to the User Safety Recommendations text currently on the label:

“Remove clothing/**PPE** immediately if pesticide gets inside. **Then wash thoroughly and put on cleaning clothing.**”

7) Per the RED table, the text in bold type must be added to the Environmental Hazards text currently on the label:

“This pesticide **is toxic to fish and aquatic invertebrates...**”

Note: The text “except as noted on appropriate labels” must be deleted from the second sentence of this section.

8) The REI must be revised to read:

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

Per the RED, the early entry PPE appearing in the Agricultural Use Requirements box must be revised to read:

- “- coveralls,
- chemical-resistant gloves made of any waterproof material,
- shoes plus socks,
- protective eyewear.”

9) Per the RED table, the Non-Agricultural Use Requirements box must be revised with the following entry restriction text:

“Do not enter or allow people (or pets) to enter the treated area until sprays have dried.”

10) The following revisions are needed to the directions for use:

Cereal Grain:

Add “Limited to 1.75 lbs ae per acre per crop cycle.”

Corn (Field, pop and sweet):

-Per the RED, the label must be revised to limit the application to only one preplant *or* preemergence application per crop cycle.

-The text “Maximum of 22.5 pints per acre per crop cycle” appearing under the directions for preplant and preharvest use to corn must be deleted because this restriction appears elsewhere on the label and also because this maximum rate is for all combined uses of this product to field or popcorn not just for the preplant and preharvest use.

-Preharvest (Field and Popcorn):

The text “40 to 75 fl ounces” on Page 11 is incomplete because the area treated is not specified.

-The word “Preharvest” appearing in the text “Preharvest (Sweet) – The preharvest interval (PHI) is 45 days” is confusing because it implies a preharvest use is allowed for sweet corn. The label must be revised. Preharvest use is not allowed for sweet corn.

Grass Seed Production (Page 13):

Per the RED, add:

“Limited to 2 applications per year.
Maximum of 2.0 lbs ae per application.
Minimum of 21 days between applications.”

Apple and Pear Orchards:

Add:

“Do not cut orchard floor forage for hay within 7 days of application.”
“The maximum application rate is 2.0 lbs ae per acre per application.”

Stone Fruit, Pistachios and Nut Orchards:

-It is unclear whether this product is intended for use on filberts. This issue should be clarified. If intended for use on filberts, the following restrictions must be added to the directions for use:

“For filberts, only:
The preharvest interval (PHI) is 45 days.

Postemergence

Limited to 4 applications per year.
The maximum application rate is 1.0 lbs ae per 100 gallons of spray solution per application.
The minimum retreatment interval is 30 days.”

“Pasture” and “Rangeland”:

Per the RED, the following text must be added to the label:

“For susceptible annual and biennial broadleaf weeds: Do not apply more than 1.0 lb of 2,4-D ae per acre per application.
For moderately susceptible biennial and perennial broadleaf weeds, difficult to control weeds and woody plants: Do not apply more than 2.0 lbs of 2,4-D ae per acre per application.”

Soybeans:

At the rate of 1.0 lbs ae per acre per application, the text currently on the label “Wait 7 days following application before planting soybeans” must be revised to read “Apply not less than 30 days prior to planting soybeans.”

Forestry:

Per the RED, the following rate restrictions must be added to the label and any conflicting text

must be deleted:

Broadcast:

“Limited to one broadcast application per year.
Maximum of 4.0 lbs ae per acre per broadcast application.”

Cut Stumps:

“Limit of one basal spray or cut surface application per year.
Maximum of 8.0 lbs ae per 100 gallons of spray solution.”

Injection:

“Limit to one injection application per year.”

11) Change “general information” to “product information”. On page 4, add “to the extent consistent with applicable law” in front of “buyer and user are responsible”. On page 15, change “such as” to “including”. Throughout the label change “recommended rates” to “specified rates”. On page 20 change “not recommended for use” to “not to be used for”.

12) Update the Container Disposal language to comply with PR Notice 2007-4. Add “Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et.al. v. EP, C01-0132C, (W.D. WA)” For further information, please refer to <http://www.epa.gov/espp/litstatus/wtc/qs-as.htm> to the label.

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next printing of the label whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

6/29

ACCEPTED
with COMMENTS
In EPA Letter Dated:
AUG 26 2010

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

71368-33

Recoil®

Broad Spectrum Herbicide

FOR CONTROL OF GRASSES AND BROADLEAF WEEDS IN ROUNDUP READY CORN, CEREAL GRAINS,
CORN, SORGHUM, NON-CROP AREAS, PREPLANT SOYBEANS, ORCHARDS, VINEYARDS AND FORESTRY.

ACTIVE INGREDIENTS:

Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt* 23.03%
2,4-dichlorophenoxyacetic acid** 11.38%

OTHER INGREDIENTS: 65.59%
TOTAL: 100.00%

* Contains 256 grams per liter or 2.13 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 190 grams per liter or 1.58 pounds per U.S. gallon of the acid, glyphosate.

**Contains 128 grams per liter or 1.07 pounds per U.S. gallon of the active ingredient 2,4-Dichlorophenoxyacetic acid.

**KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

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

EPA REG. NO. 71368-35
EPA EST. NO. 228-IL-1

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



NET CONTENTS

071368-00029.20071114.EPA24D.Pending

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER - PELIGRO**

Harmful if swallowed or absorbed through the skin. Avoid contact with skin eyes or clothing. Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

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

- long-sleeved shirt and long pants,
- shoes and socks, plus
- protective eyewear
- chemical resistant gloves, when applying postharvest dips or sprays to citrus, applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- chemical resistant apron when applying postharvest dips or sprays to citrus, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

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

See engineering controls for additional requirements.

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 [40 CFR 170.240(d) (4-6)], the handler PPE (personal protective equipment) 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 an emergency, such as a spill or equipment break-down.

For containers over 1 gallon but less than 5 gallons, mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

For containers of 5 gallons or more, a mechanical transfer system (probe and pump) must be used for transferring the contents of the container. If the contents of a non-refillable pesticide containers are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)] the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS	
Users Should:	
<ul style="list-style-type: none"> • Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. • Remove clothing immediately if pesticide gets inside. • Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. 	

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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 the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
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 advice.

HOT LINE 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 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIANS
 Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARDS

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark except as noted on appropriate labels. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

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

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

AGRICULTURAL CHEMICAL

Do not ship or store with foods, feeds, drugs, or clothing.

DIRECTIONS FOR USE

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

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls over long-sleeved shirt and long pants, chemical resistant gloves such as nitrile, viton or barrier laminate, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or green houses.

Do not allow people (other than applicator) or pets on treatment area during application.

Do not enter treatment areas until sprays have dried.

SPRAY DRIFT MANAGEMENT

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

Droplet Size

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

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

Wind Speed

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

Temperature Inversions

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

Susceptible Plants

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

Other State and Local Requirements

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

Equipment

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

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

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

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

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

NOTICE

Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Liability" elsewhere on this label. If terms are not acceptable, return unopened package at once to Seller for full refund of purchase price paid. Otherwise, use by the Buyer or any other User constitutes acceptance of the terms under the "Warranty Disclaimer" and "Limitation of Liability".

GENERAL INFORMATION

Do not apply RECOIL Herbicide through any type of irrigation system.

Do not use in or near a greenhouse.

Product Description: This product is a postemergent, systemic herbicide. It is generally non-selective and gives broad spectrum control of many annual weeds, perennial weeds, woody brush and trees.

Time to Symptom: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2-4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant, which advances to complete browning of above-ground growth and deterioration of roots and rhizomes.

Stage or Condition of Weeds: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Plants arising from unattached underground rhizomes or root stocks of perennials which emerge following treatment will not be affected by the herbicide and will continue to grow.

Weeds having insect damage or disease or growing under environmental stress such as drought may absorb less herbicide resulting in reduced weed control. Reduced results may also occur when treating weeds heavily covered with dust.

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Refer to the application rate tables for recommendations for specific weeds.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray coverage: For best results, spray coverage should be uniform and complete. However, spraying to the point of runoff is wasteful and should be avoided.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microorganisms.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control, follow a label approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

To test for compatibility, use a small container and mix a small amount (0.5 to 1 qt) of intended spray carrier (water or liquid fertilizer), combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5-15 minutes after mixing.

Buyer and user are responsible for all loss of damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this labeling. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

MIXING

Reduced results may occur if water containing soil is used, such as visibly muddy water or water from ponds and ditches that is not clear.

Mixing with Water or Liquid Nitrogen Solutions

This product mixes readily with water. Mix spray solutions of this product as follows. Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product near the end of the filling process. (Where non-ionic surfactant is used, add this to the spray tank before completing the filling process. Mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by common sense, or state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent. Use 10 to 60 gallons of nitrogen solution per acre.

NOTE: Before mixing this product or labeled tank mixtures of this product with liquid nitrogen solutions or water, the planned combination should be tested for compatibility as described under tank mixing in general information.

Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. If nonionic surfactant or other spray adjuvants are desired, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant or adjuvant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

MIXING FOR HAND-HELD and HIGH VOLUME EQUIPMENT

Prepare the desired volume of spray solution by mixing the indicated amount of this product in water as shown in the following table:

Spray Solution

DESIRED VOLUME	AMOUNT OF NUFARM RECOIL					
	0.5%	1%	1.5%	2%	5%	10%
1 Gal.	0.6 fl. oz.	1.3 fl. oz.	2 fl. oz.	2.6 fl. oz.	6.5 fl. oz.	12.75 fl. oz.
25 Gal.	1 pt.	1 qt.	1.5 qt.	2 qt.	5 qt.	10 qt.
100 Gal.	2 qt.	1 gal.	1.5 gal.	2 gal.	5 gal.	10 gal.

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, pre-mix the recommended amount of this product by stirring into water in a large container. Fill sprayer with the mixed solution.

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do spray to the point of runoff.

For control of annual weeds listed in the Non-crop section of this label, apply a 0.6 percent solution of this product plus nonionic surfactant to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. Allow 3 or more days before tillage or mowing.

For annual weeds over 6 inches tall, or when not using additional surfactant, or unless otherwise specified, use a 1.2 percent solution. For best results, use a 2.4 percent solution on harder-to-control perennials, such as Bermudagrass, Dock, Field bindweed, Hemp Dogbane, Milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 6.2 percent solution for annual and perennial weeds and a 6 to 12 percent solution for woody brush and trees.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NONWOODY ROOTS OR FRUIT OF CROPS, DESIRABLE TURFGRASSES, TREES, SHRUBS OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Where repeat applications are necessary, do not exceed 12.7 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label-approved herbicide program.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

ADDITIVES

NONIONIC SURFACTANTS

This product is formulated to not require additional surfactant under normal conditions of use. Nonionic surfactants may increase control under difficult control circumstances including tall dense weed growth, drought stress, insect damage, cold temperatures prior to or at application and with high volume rates of application (greater than 20 gallons per acre). Nonionic surfactants which are labeled for use with herbicides may be used with this product and labeled tank mixtures. The use of surfactants as additives does not reduce the application rate of this product required to achieve weed control. When adding additional surfactant, use 0.25 to 0.5 percent concentration (1 to 2 quarts per 100 gallons of spray solution) of surfactant containing at least 70 percent active ingredient or a 1 percent concentration (4 quarts per 100 gallons of spray solution) for those containing less than 70 percent active ingredient. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

NOTE: Use of herbicides at lower than label recommended rates will result in reduced performance.

AMMONIUM SULFATE

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly when tank mixed with certain residual herbicides. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray tank with clean water after use to minimize corrosion.

NOTE: Recommended rate for herbicides should be maintained when adding ammonium sulfate.

COLORANTS OR DYES

Agriculturally-approved colorants or marking dyes may be added to spray solutions of this product. However, their use may reduce the herbicide's performance, especially at lower rates or higher dilutions.

DRIFT CONTROL ADDITIVES

Drift control additives may be used with all equipment types. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

NOTE: As with nitrogen solutions and other adjuvants, always predetermine compatibility of labeled tank mixtures including colorants, dyes and drift control agents.

APPLICATION EQUIPMENT AND TECHNIQUES

This product may be applied with the following application equipment:

Aerial – Fixed Wing and Helicopter.

Ground Broadcast Spray – Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

Hand-Held and High-Volume Spray Equipment – Knapsack and backpack sprayers, pump-up pressure sprayers, hand-guns, handwands, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

Injection Systems – Aerial or ground injection sprayers.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. CLEAN SPRAYER PARTS IMMEDIATELY AFTER USING THIS PRODUCT BY THOROUGHLY FLUSHING WITH WATER AND AN APPROVED CLEANING AGENT.

GROUND BROADCAST EQUIPMENT

A minimum of 5 to 40 gallons of water per acre as a broadcast spray is recommended for proper spray coverage. As density of weeds increases, spray volume may be increased up to 40 gallons within the recommended range to ensure complete coverage. Select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

HAND-HELD AND HIGH VOLUME EQUIPMENT

For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. However, spraying herbicide solution to the point of runoff is wasteful and should be avoided. Use coarse sprays only.

INJECTION SYSTEMS

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Because compatibility of concentrated products has not been tested. Mixture of this product with the concentrate of other products is not advised when using injection systems.

**WEEDS CONTROLLED
ANNUAL WEEDS**

Barley	Falseflax, smallseed	Kochia	Shattercane
Barnyardgrass	Field pennycress	Lambsquarters	Shepherd's-purse
Bluegrass, annual	Filaree	Lettuce, prickly	Sowthistle, annual
Bluegrass, bulbous	Fleabane, Hairy	Millet, wild proso	Spurge, annual
Brome, downy	(<i>Conyza bonariensis</i>)	Morningglory	Stinkgrass
Buckwehat, wild	Florida pusley	(<i>Ipomoea spp.</i>)	Texas panicum
Buttercup	Foxtail, green	Mustard, blue	Thistle, Russian
Cheat	Foxtail, giant, bristly, yellow	Mustard, tansy	Wheat
Chickweed	Goatgrass, jointed	Mustard, tumble	Wild oats
Cocklebur	Groundsel, common	Mustard, wild	Witchgrass
Corn	Henbit	Pigweed	
Crabgrass	Horseweed/Marestail	Rye, cereal/volunteer	
Dwarf dandelion	(<i>Conyza canadensis</i>)	Ryegrass, Italian	
Fall panicum	Johnsongrass, seedling	Sandbur, field	

Refer to specific "CROP" and "NON-CROP" use directions for rates and application instructions.

For control of annual weeds apply 36 to 56 fluid ounces of this product as a broadcast spray or a 1 to 4 percent solution with handheld equipment.

Always use the higher rate of this product per acre within the recommended range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

ANNUAL WEEDS TANK MIXTURES

DIABLO™ OR TORDON® 22K

20 to 28 fluid ounces of this product plus 0.25 pound a.i. of Diablo or 1 to 2 fluid ounces of Tordon 22K per acre will control the following weeds with the maximum height or length indicated: 6 inches- Prickly lettuce, Marestail/Horseweed, Morningglory, Kochia (Diablo only); Wild buckwheat (Tordon 22K only); 12 inches – Cocklebur, Lambsquarters, Pigweed, Russian thistle.

20 fluid ounces of this product plus 0.25 pound a.i. of Diablo per acre will control foxtail up to 18 inches.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Diablo or Tordon 22K is applied within 45 days of planting.

ATRAZINE OR BLADEX® FOR FALLOW AND REDUCED TILLAGE SYSTEMS

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed 1 pound atrazine per acre.

20 fluid ounces of this product plus 1 to 2 pounds of atrazine or 2.4 to 4 pounds of cyanazine per acre will control the following weeds: Barnyardgrass (requires 26 fluid ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass, and Kochia (add 4 fluid ounces Diablo for control).

PERENNIAL WEEDS

(Alphabetically by Species)

Always use the higher rate of this product per acre within the recommended range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Unless otherwise stated, allow 7 or more days after application before tillage. Best results are obtained when soil moisture is adequate for active weed growth.

Hand-Held and High-Volume Application

For best results, use a 2.5 percent solution on harder-to-control perennials, such as Bermudagrass, Dock, Field bindweed, Hemp, Dogbane, Milkweed and Canada thistle. When using application methods resulting in less than complete coverage, use a 5 percent solution for perennial weeds and a 5 to 10 percent solution for woody brush and trees.

Recoil Plus Other Labeled Herbicides

Tank-mixing with residual herbicides when using the 1 to 1.25 quarts per acre rate will result in reduced control. Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

PERENNIAL WEEDS RATE TABLE

WEED SPECIES	USE RATE (Quarts/Acre)	WATER VOLUME (GPA)	HAND HELD EQUIPMENT (Percent Solution)
Alfalfa	1.25 to 2.5	3 to 10	2
	Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.		
Bindweed, field	1.25 to 6	3 to 20	2
	Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. For suppression, apply 16 to 20 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D or 0.25 pound of a.i. of Diablo in 3 to 10 gallons of water per acre for aerial applications. Apply by air fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.		
Blueweed, Texas	4 to 5	3 to 40	2
	Apply 4 to 5 quarts of this product per acre. Apply when plants are at or beyond full bloom. New leaf development indicated active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.		
Bromegrass, smooth	1.25 to 2.5	3 to 40	2
	Apply 2.5 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.25 to 2 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.		
Johnsongrass	1 to 4	3 to 40	1 to 2
	In annual cropping systems apply 1.25 to 2.5 quarts of the product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. On farmstead sites or areas where annual tillage (no -till) is not practiced, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. For burndown of Johnsongrass, apply 32 fluid ounces of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control of suppression) -Apply a 1 to 2 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.		
Nightshade, silverleaf	2.5	3 to 10	2
	Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.		
Quackgrass	2 to 4	3 to 40	2
	In annual cropping systems or in pastures and sods followed by deep tillage: Apply 2 quarts of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 4 quarts of this product. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results. In pastures, sods or farmstead sites where deep tillage does not follow application: Apply 3 to 5 quarts of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.		

(continued)

PERENNIAL WEEDS RATE TABLE (continued)

WEED SPECIES	USE RATE (Quarts/Acre)	WATER VOLUME (GPA)	HAND HELD EQUIPMENT (Percent Solution)
Ryegrass, perennial	1.75 to 5	3 to 40	1
	<p>In annual cropping systems apply 1.75 to 3 quarts of this product per acre. Apply 2 quarts of the product in 3 to 10 gallons of water per acre. Use 3.5 quarts of this product when applying 10 to 40 gallons of water per acre. On farmstead sites or areas where annual tillage (no-tills) is not practiced, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre.</p> <p>For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost.</p>		
Spurge, leafy	1	3 to 10	2
	<p>For suppression, apply 32 fluid ounces of this product plus 0.25 pound a.i. Diablo in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.</p>		
Thistle, Canada	2 to 4	3 to 40	2
	<p>Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.</p> <p>For suppression, apply 2 quarts of this product in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.</p> <p>NOTE: Mixtures of 2,4-D amines with glyphosate products may result in reduced control of this weed. Users should consider local conditions and previous local recommendations when applying this product.</p>		
Wheatgrass, Western	3.5 to 5.5	3 to 40	2
	<p>For best results, apply when most plants have reached the boot-to head stage of growth.</p>		

CROPS

(Alphabetical)

This section is organized alphabetically by crop category. There may be several labeled crops listed in a crop category. Unless otherwise specified, applications may be made to control any weeds listed in the annual and perennial tables.

Precautions, Restrictions for all Crop Uses:

- For any crop not listed in this "CROPS" section, applications must be made at least 30 days prior to planting.
- For Spot Treatments in labeled crops, do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Avoid drift or spray outside target area for the same reason.
- For Broadcast Postemergent Treatments, do not graze harvest or feed treated vegetation for 8 weeks following application unless otherwise specified.

CEREAL CROPS

Labeled Crops: Feed Barley, Millet (Pearl, Proso), Oats, Rye, Triticale, and Wheat (All)

Types of Applications: Preplant, spot treatment, post-harvest, preharvest (wheat and feed barley only)

Preplant (Wheat and Feed Barley)

This product may be applied prior to planting wheat and feed barley to control established weeds. Apply 36 to 56 fluid ounces per acre by aerial or ground spray equipment.

Precautions, Restrictions: Do not plant wheat for 14 days following application. For optimum weed control, wait at least 2 days following application before doing any tillage.

Spot Treatment

This product may be applied as a spot treatment in labeled cereal crops for control of perennial weeds and difficult to control annual weeds. Apply before heading in small grains. Apply a 1 to 4 percent solution, completely wetting weed surfaces, but not to the point of run-off.

Precautions, Restrictions: For spot treatment, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

Preharvest (Wheat and Feed Barley)

This product provides weed control when applied prior to harvest of wheat or barley. Apply after the hard-dough stage of grain (30 percent or less moisture). Apply 36 to 56 fluid ounces per acre using either aerial or ground spray equipment.

Precautions, Restrictions: Since herbicide treatment may reduce germination or vigor, it is not advised to treat wheat or barley grown for seed. Allow at least 14 days between application and harvest of grain. Allow 7 days between application and grazing or harvest of forage or straw.

Postharvest

This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds that were growing in the crop at the time of application. Tank mixtures with dicamba may be used. Apply 36 to 56 fluid ounces per acre by aerial or ground spray equipment.

Precautions, Restrictions: Since herbicide treatment may reduce germination or vigor, it is not advised to treat wheat or barley grown for seed. Allow at least 14 days between application and harvest of grain. Allow 7 days between application and grazing or harvest of forage or straw.

PRECAUTIONS, RESTRICTIONS FOR USE ON CEREAL GRAINS

For aerial application on grain, a minimum of 2 or more gallons of water per acre is recommended for proper spray coverage. Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.

Postemergence:

Limited to one postemergence application per crop cycle. Maximum of 9 pints per acre per application.

Preharvest:

Limited to one preharvest application per crop cycle. Maximum of 3.75 pints per acre per application.

CONSERVATION RESERVE PROGRAM (CRP)

Types of Applications: Renovation (rotating out of CRP), postemergence, site preparation

Renovation (Rotating out of CRP), Site Preparation (Dormant Perennial Grass Only)

This product may be used to prepare CRP land for crop production. Apply 48 to 64 fluid ounces per acre by aerial or ground spray equipment.

Precautions, Restrictions: For any crop not listed in the "CROPS" section, applications must be made at least 30 days prior to planting or until after 2,4-D residues have disappeared from soil. Allow 7 days between application and harvest of forage or straw. Do not graze lactating dairy animals in treated areas within 7 days after application. If treated area is grazed within 30 days of application, withdraw meat animals at least 3 days before slaughter. Do not apply within 30 days of previous application.

Postemergence

This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 24 to 40 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested and fall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS, RESTRICTIONS FOR CRP

Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. For any crop not listed in the "CROPS" section, applications must be made at least 30 days prior to planting or until after 2,4-D residues have disappeared from soil. Allow 7 days between application and harvest of forage or straw. Do not graze lactating dairy animals in treated 11 areas within 7 days after application. If treated area is grazed within 30 days of application, withdraw meat animals at least 3 days before slaughter. Do not apply within 30 days of previous application.

The preharvest interval (PHI) is 7 days (cut forage for hay).

Postemergence:

Limited to 2 applications per year.

Maximum of 15 pints per acre per application.

Minimum of 30 days between applications.

If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

CORN

Types of Corn: Field corn (Conventional and Roundup Ready Hybrids), Sweet Corn and Popcorn

Types of Applications: Preplant, preemergence, post-emergence (Roundup Ready Hybrids Only), preharvest and postharvest

PREPLANT

Preplant (Field and Sweet Corn)

36 to 56 fluid ounces. For burndown of existing grass and broadleaf weeds, apply at least 7 days before planting. Do not use on light sandy soil. Use higher rates on dense stands of larger weeds or cover crops such as alfalfa. Limited to one preplant application per crop cycle. Maximum of 7.5 pints per acre per application. Maximum of 22.5 pints per acre per crop cycle.

Preplant (Pop Corn)

Limited to one preplant application per crop cycle. Maximum of 7.5 pints per acre per application. Maximum of 22.5 pints per acre per crop cycle.

PREEMERGENCE

Preemergence (Field Corn)

36 to 56 fluid ounces. To control existing grass and broadleaf weeds, apply 3 to 5 days after planting but before corn emerges. For partial preemergent control of broadleaf weeds, apply higher rate on high organic matter soil. Do not use in California. Limited to one preemergence application per crop cycle. Maximum of 7.5 pints per acre per application.

Preemergence (Pop Corn)

Limited to one preplant application per crop cycle. Maximum of 7.5 pints per acre per application.

POSTEMERGENCE

Postemergence (Field Corn)

36 to 56 fluid ounces. To control annual grass and broadleaf weeds, apply when weeds are small and corn is fully emerged but less than 8 inches tall. When corn is over 8 inches, drop nozzles are recommended. Treat perennial weeds when in the bud to bloom stage. Limited to one postemergence application per crop cycle. Maximum of 3.75 pints per acre per application.

Postemergence (Pop Corn and Sweet)

Limited to one postemergence application per crop cycle. Maximum of 3.75 pints per acre per application.

Do not spray corn in the tassel to dent stage.

Spot Spray (Field Corn)

1 to 4 percent solution. Apply to weeds during active growth. Spray to wet leaves but not to point of runoff.

PREHARVEST

Preharvest (Field and Popcorn)

40 to 75 fluid ounces. This product may be used to control large annual and perennial weeds that may interfere with harvest. Apply at 35 percent grain moisture or less. Ensure maximum kernel fill is complete and the corn is physiologically mature (black layer formed). Use a maximum of 36 to 56 fluid ounces if applied by air. The preharvest interval (PHI) is 7 days. Limited to one preharvest application per crop cycle. Maximum of 11 pints per acre per application. Maximum of 22.5 pints per acre per crop cycle.

Preharvest (Sweet)

The preharvest interval (PHI) is 45 days.

POSTHARVEST

Postharvest

40 to 75 fluid ounces. Following corn harvest, this product may be used to control perennial weeds. Allow regrowth of weeds to ensure sufficient leaf area for uptake. Higher rates may be required for larger weeds.

PRECAUTIONS, RESTRICTIONS FOR ALL CORN USES

Do not use on light sandy soils. Ensure planting depth is sufficient to place seed in untreated soil. Do not harvest grain for 7 days following application. Do not use treated crop as fodder for 7 days following application.

Tank mixes for corn when applied at preplant and preemergence timings: Preemergent herbicides may be tank mixed with this product for control of weeds not emerged at time of application. Tank mixes with micro-encapsulated herbicides such as Micro-Tech are not recommended. Always determine compatibility of tank mixtures by mixing small proportional quantities of each product before preparing spray tank mixtures. Read and follow all directions and limitations on this and tank-mix partner labels.

Additional Use Precautions for Sweet Corn

The preharvest interval (PHI) is 45 days. Minimum of 21 days between applications. Maximum of 11 pints per acre per crop cycle.

Additional Use Precautions for Field and Pop

The preharvest interval (PHI) is 7 days. Maximum of 22.5 pints per acre per crop cycle.

FALLOW SYSTEMS

This product may be applied to idle land, postharvest to crops such as cotton, or between crops. For best results, treat when weeds are young and actively growing. Apply 36 to 56 fluid ounces per acre. Use higher rates in dense or larger weeds stands or when weeds are under stress. Follow replant intervals below to prevent illegal residues in the following crop.

Labeled Crops

Within 29 days following an application of this product, plant only those crops names as use sites on this or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

Other Crops

All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

Degradation Factors

When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application.

Precautions and Restrictions

Do not cut forage for hay within 7 days of application. Do not apply within 30 days of previous application. Limited to 2 applications per year. Maximum of 15 pints per acre per application.

FARMSTEADS

Types of Applications: General nonselective weed control, trim-and-edge, chemical mowing

General Nonselective Weed Control, Trim and Edge

This product may be used to control annual weeds and perennial weeds which are found in any part of the farmstead, including building foundations, along and in fences, shelterbelts, and equipment storage areas.

Chemical Mowing

This product will partially control broadleaf weeds and suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 16 to 22 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 22 fluid ounces of this product per acre when treating Tall fescue, Fine fescue, Orchardgrass or Quackgrass covers. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

Precautions, Restrictions

Use only in areas where some stand thinning, temporary injury or discoloration of perennial grasses can be tolerated.

GRAIN SORGHUM (MILO)

Types of Applications: Preplant, preemergence, at-planting, spot treatment, postharvest

Preplant

This product may be applied before, during or after planting milo. Apply up to 36 to 56 fluid ounces of this product per acre.

Preemergent herbicide products such as atrazine, metolachlor, dimethenamid, and alachlor in tank mixtures may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue. Read and follow all directions and limitations on this and tank-mix partner labels.

Precautions, Restrictions: *Under certain circumstances, an application of 2,4-D may result in reduced early growth vigor. Applications should be made 5 to 7 days prior to anticipated emergence of the crop to allow adequate dissipation of 2,4-D. Ensure planting equipment is completely closing seed row. Do not permit meat or dairy animals to consume treated crops as fodder for 30 days following application.*

Spot Treatment

This product may be applied as a spot treatment in grain sorghum. Apply before heading of milo. Apply a 1 to 2 percent solution to fully wet leaves, but before the point of run-off.

Precautions, Restrictions: *Allow at least 30 days between application and harvest. Do not ensile treated vegetation. Do not permit meat of dairy animals to consume treated crop as fodder or forage within 30 days following application.*

Postharvest

This product may be applied after harvest of grain sorghum for control of weeds growing at time of harvest and to suppress grain sorghum stubble regrowth. Higher rates up to 36 to 56 fluid ounces may be required for control of large weeds. Tank mixture with dicamba may be used.

USE PRECAUTIONS FOR GRAIN SORGHUM (MILO)

The preharvest interval (PHI) is 30 days.

Postemergence (acid, salts, and amines):

Limited to 1 application per crop cycle.

Maximum of 7.5 pints per acre per application.

GRASS SEED PRODUCTION

Types of Applications: Site preparation, renovation, spot treatments, creating rows in annual ryegrass

Site Preparation, Renovation

This product may be used before planting or renovation of turf or forage grass areas grown for seed production. Apply 40 to 60 fluid ounces per acre depending on density of grass stand. Reseeding should be delayed for 6 weeks or until 2,4-D residues have dissipated from soil.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control.

Precautions, Restrictions: *Tillage or renovation techniques such as vertical mowing, coring or slicing that disturb soil or underground plant parts should be avoided before treatment and should be delayed for 7 days after application to allow proper translocation into underground plant parts.*

Grazing Restrictions: Do not graze lactating dairy animals on treated areas within 7 days after application Do not harvest grass cut for hay from treated areas for 7 days. Withdraw meat animals from treated forage at least 3 days before slaughter.

Spot Treatments

Use a 1 to 4 percent solution. Apply to fully wet leaves, but before the point of runoff.

Creating Rows in Annual Ryegrass

Apply 36 to 56 fluid ounces of this product per acre mixed with water. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.

Precautions, Restrictions: *Set nozzle heights to allow the establishment of desired row spacing while preventing spray droplets, fines or drift to contact the ryegrass plants not treated. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band are recommended.*

ORCHARDS AND VINEYARDS

Rates of Application for Orchards and Vineyards

Apply 1 to 4 quarts of this product in 15 to 100 gallons of water per acre for control of annual grasses, broadleaves and perennials. Use the higher rate for larger weeds, dense stands or when weeds are under drought stress. Control will be best when weeds are actively growing and applications are made in the bud to early bloom stage. For difficult to control perennials, refer to the weeds controlled section of this label for specific rates of application up to a maximum of 5 quarts per acre. For band or spot treatment, calculate rates according to the actual portion of an acre treated.

If weeds have been recently mowed, allow to regrow before application for maximum control. In cases of extreme drought stress and weeds are not actively growing, irrigate to promote weed growth prior to application.

Grape Vineyards

Established at least 3 years - apply after shatter following bloom and before grape shoots reach the ground or during dormant season. Use a hooded boom and low pressure flooding nozzles to deliver coarse droplets.

Use Precautions: *Grapes are extremely sensitive to 2,4-D. Use a directed application so no spray contacts grape leaves and young shoots or stems. For use only in California. The preharvest interval (PHI) is 100 days. Limited to 1 application per crop cycle.*

Apple and Pear Orchards

NON-BEARING TREES (well established - one year or older), and BEARING TREES before and after bloom. A maximum of two applications per season are allowed. The minimum retreatment interval period is 75 days. The preharvest interval is 14 days.

Stone Fruit, Pistachios and Nut Orchards

Make up to two applications through the dormant or growing season as needed. Do not harvest stone fruits within 40 days of application. Do not harvest nuts within 60 days of application. Do not graze or feed cove crops from treated orchards to livestock.

Use Precautions for Stone Fruit: *Do not cut orchard floor forage for hay within 7 days of application.*

Postemergence:

Limited to 2 applications per crop cycle.

Maximum of 15 pints per acre per application.

Minimum of 75 days between applications.

Use Precautions for Nuts: *Do not cut orchard floor forage for harvest within 7 days of application.*

Postemergence:

Limited to 2 applications per crop cycle.

Maximum of 15 pints per acre per application.

Minimum of 30 days between applications.

Precautions in Applying in Orchards and Vineyards

Apply only after irrigation and allow maximum time before the next irrigation. Do not apply around fruit trees or vines with hand gun. Use only flat-fan type nozzles and low pressures - 20 to 25 pounds. Use a lined or shielded boom applicator which can be calibrated and which will deposit the spray uniformly. Avoid contact with fruit, foliage, stems or lower limbs of trees or vines. Apply precisely and uniformly to prevent damage to the trees or vines and to obtain satisfactory weed control. Do not apply during windy periods or extremely high temperatures. Do not spray bare ground. To avoid leaching, do not apply to dry soils. Apply when soil is moist and do not irrigate for 5 to 7 days after application.

PASTURES

Types of Pastures: Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Orchardgrass, Ryegrass, Timothy, and Wheatgrass.

Types of Applications: Preplant, pasture renovation, spot treatment.

Preplant and Pasture Renovation

This product may be used to control perennial pasture species listed on this label prior to re-planting. Under normal rainfall conditions or with irrigation, seeding should be delayed up to 6 weeks or until 2,4-D residues have dissipated from soil. Under extreme dry conditions, test soil to ensure satisfactory germination. Apply at a rate of 40 to 64 fluid ounces per acre.

Precautions, Restrictions: Remove domestic livestock before application and wait 8 weeks before grazing or harvesting.

Spot Treatment

Use a 1 to 4 percent solution applied to wet foliage, but not to point of runoff. Applications may be made in the same area at 30 day intervals.

Precautions, Restrictions: For spot treatment, apply in areas where the movement of domestic livestock can be controlled. No more than one-tenth of any acre should be treated at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

USE PRECAUTIONS FOR PASTURES

The preharvest interval (PHI) is 7 days (cut forage for hay).

Postemergence:

Limited to 2 applications per year.

Maximum of 15 pints per acre per application.

Minimum of 30 days between applications.

If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

RANGELANDS

Types of Applications: Postemergence.

This product will control or suppress many annual weeds growing in perennial cool and warm season grass rangelands. Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennial grasses. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

Apply 40 to 64 fluid ounces of this product to control or suppress many annual and perennial weeds in rangelands. Apply when most mature annual grasses are in early flower and before seedhead formation. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve, and encourages perennial grass conversion on weeds sites. Fall applications are possible and recommended where spring moisture is usually limited and fall germination allows for good weed growth.

Apply 40 to 64 fluid ounces of this product when Medusahead has reached the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying clumps prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seed bank before reestablishing desirable perennial grasses in medusahead dominated rangelands.

Precautions, Restrictions for Rangelands

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. Use of ammonium sulfate when spraying rangeland grasses with this product is not recommended. Do not graze lactating dairy animals on treated areas within 7 days after application. Withdraw meat animals from treated forage at least 3 days before slaughter.

The preharvest interval (PHI) is 7 days (cut forage for hay).

Postemergence:

Limited to 2 applications per year.

Maximum of 15 pints per acre per application.

Minimum of 30 days between applications.

If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

RICE

Type of Application: Preplant.

Apply 36 to 56 fluid ounces per acre a minimum of 2 weeks before planting to control emerged weeds. Use higher rates for larger annually weeds or perennials in dense stands or difficult growing conditions.

Precautions, Restrictions for Rice

The preharvest interval (PHI) is 60 days.

Maximum of 11 pints per acre per crop cycle.

Preplant:

Limited to one preplant application per crop cycle.

Maximum of 7.5 pints per acre per preplant application.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 11 pints per acre per postemergence application.

SOYBEANS

Types of Applications: Preplant.

This product may be applied at 36 to 56 fluid ounces per acre before planting soybeans. Use the higher rate on large overwintering weeds and perennials. Wait 7 days following application before planting soybean. Under cold soil conditions, it is recommended to delay planting so that further time is available for 2,4-D to dissipate from the soil.

Tank Mixes for Preplant Application to Soybean

Preemergent herbicides may be tank mixed with this product for control of weeds not emerged at time of application. Tank mixes with micro-encapsulated herbicides such as Micro-Tech are not recommended. Always determine compatibility of tank mixtures by mixing small proportional quantities of each product before preparing spray tank mixtures. Read and follow all directions and limitations on this and tank-mix partner labels.

Precautions, Restrictions for Soybeans: *In treated fields, plant soybean seed as deep as practical, but not less than 1 inch deep. Adjust the planter if necessary to ensure that the planted seed is adequately covered. Do not make more than one application per season regardless of the application rate used. Do not use on sandy soils with less than 1 percent organic matter. Do not allow livestock grazing or harvest hay, forage, or fodder from treated fields.*

The maximum rate per crop cycle is 7.5 pints per acre.

Preplant:

Limited to 2 preplant applications per crop cycle. Maximum of 3.75 pints per acre per preplant application.

SUGARCANE

Type of Application: Preplant.

Apply 36 to 56 fluid ounces per acre before canes emerge to control emerged weeds. Use higher rates for larger annual weeds or perennials in dense stands or under difficult growing conditions.

Restrictions and Limitations for Use in Sugarcane

Do not harvest cane prior to crop maturity. Use 2 or more gallons of spray solution per acre. Do not apply more than 30 pints per acre per crop cycle.

Preemergence:

Limited to one preemergence application per crop cycle.

Maximum of 15 pints per acre per application.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 15 pints per acre per application.

NON-CROP USES

See "GENERAL INFORMATION" and "MIXING", "ADDITIVES" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for essential product performance information and the following "NON-CROP" sections for specific recommended uses.

NON-CROP, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NON-CROP USES", under conditions described, this product controls annual and perennial weeds listed on this label growing in areas such as airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, manufacturing sites, office complexes, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides (guardrails, shoulders), schools, storage areas, utility substations, warehouse areas, other public areas.

For specific rates of application and instructions for control of various annual and perennial weeds see the "WEEDS CONTROLLED" section of this label.

Chemical mowing - Annuals

For growth suppression of some annual grasses, such as Annual ryegrass, Wild barley and Wild oats growing in coarse turf on roadsides or other industrial areas, apply 4.8 to 6.0 fluid ounces of this product in 10 to 40 gallons of spray solution per acre.

Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

Chemical mowing – Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 16 to 22 fluid ounces of this product per acre when treating Tall fescue, Fine fescue, Orchardgrass or Quackgrass covers. Use 22 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre.

Precautions, Restrictions for Non-Crop Uses

Postemergence (annual and perennial weeds):

Limited to 2 applications per year.
Maximum of 15 pints per acre per application.
Minimum of 30 days between applications.

Postemergence (woody plants):

Limited to 1 application per year.
Maximum of 30 pints per acre per year.
Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

RAILROADS

Bare ground, Ballast and Shoulders, Crossings, and Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. Apply at a rate of 40 to 64 fluid ounces per acre. This product may be used to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way, wayside structures, and other similar areas. For crossing applications, up to 80 gallons of spray solution per acre may be used. This product may be tank mixed with the following products for ballast, shoulder, spot, bare ground crossing treatments:

2,4-D	GARLON® 4	SPIKE®
ARSENAL®	HYVAR® X	SPYDER™
DICAMBA	KROVAR® I DF	TAHOE™ 3A
DIURON	OUST®	TAHOE™ 4E
ESCORT®	PATRIOT™	TELAR®
GARLON® 3A	SAHARA®	VANQUISH®

Brush Control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4.8 to 12 quarts of this product per acre as a broadcast spray, using boom-type or boom-less nozzles. Up to 80 gallons of spray solutions per acre may be used. Apply a 0.9 to 2.4 percent solution of this product when using high-volume spray-to-wet applications. Apply a 6 to 12 percent solution of this product when using low volume directed sprays for spot treatment. This product may be tank mixed with the following products for enhanced control of woody brush and trees:

ARSENAL	GARLON 4	TAHOE™ 4E
ESCORT	PATRIOT™	TORDON K
GARLON 3A	TAHOE™ 3A	

Bermudagrass Release

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1.2 to 3.6 pints of this product in up to 80 gallons of spray solutions per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

This product may be tank-mixed with Spyder. If tank-mixed, use no more than 1.2 to 3.6 pints of this product with 1 to 2 ounces of Spyder per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Spyder label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dewberry	Poorjoe
Blackberry	Dock, curly	Raspberry
Bluestem, silver	Dogfennel	Trumpetcreeper
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may occur.

ROADSIDES

Shoulder Treatments

This product may be used on road shoulders. Apply at a rate of 40 to 64 fluid ounces per acre.

Guardrails and Other Obstacles to Mowing

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside at a 1 to 4 percent solution.

Spot Treatment

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

Tank Mixtures

This product may be tank-mixed with the following products for shoulder, guardrail, spot and bare ground treatments:

2,4-D	PATRIOT™	SIMAZINE
DICAMBA	PENDULUM® 3.3 E	SPYDER
DIURON	PENDULUM WDG	SURFLAN
ENDURANCE®	PRINCEP® DF	TELAR
ESCORT	PRINCEP LIQUID	VANQUISH
KROVAR I DF	RONSTAR® 50 WP	
OUST	SAHARA	

See the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section of this label for general instructions for tank mixing.

Release of Bermudagrass or Bahiagrass

Dormant Applications

This product may be used to control or partially control many winter annual weeds and all fescue for effective release of dormant Bermudagrass or Bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank-mixed with Spyder for residual control. Tank mixtures of this product with Spyder may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated.

For best results on tall fescue, treat when fescue is at or beyond the 4 to 6-leaf stage.

Apply 9.6 to 76.8 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Spyder. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or Bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Spyder per acre on Bermudagrass and no more than 0.5 ounce of Spyder per acre on bahiagrass and avoid treatments when these grasses are in semi-dormant condition.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1.2 to 3.6 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

This product may be tank-mixed with Spyder. If tank-mixed, use no more than 1.2 to 2.4 pints of this product with 1 to 2 ounces of Spyder per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Spyder label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dock, curly	Poorjoe
Bluestem, silver	Dogfennel	Trumpetcreeper
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not recommended, since severe injury may occur.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of Bahiagrass for approximately 45 days, apply 7.2 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4.8 fluid ounces of this product per acre, followed by an application of 2.4 to 4.8 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

TANK MIXTURES FOR INDUSTRIAL SITES AND FORESTRY SITE PREPARATIONS

Recoil plus Spyder

Use on industrial sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to Jack pine, Loblolly pine, Red pine, Slash pine and Virginia pine. When applied as directed for "NON-CROP USES" under the conditions described, this product plus Spyder provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and Spyder, and control or partial control of the perennial weeds listed below.

Apply 1.2 to 2.4 quarts of this product with 2.4 to 4.8 ounces of Spyder in 10 to 40 gallons of spray solution per acre as a broadcast spray to actively growing weeds.

This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the recommended rates in 5 to 15 gallons of spray solution per acre.

This product plus Spyder tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass	Dogfennel	Quackgrass
Bermudagrass*	Fescue, tall	Trumpetcreeper*
Broomsedge	Johnsongrass**	Vaseygrass
Dock, curly	Poorjoe**	Vervain, blue

*Suppression at the higher rates only.

**Control at the lower rates

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

TANK MIXTURES NON-CROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

Recoil plus DIURON	Recoil plus SIMAZINE 4L	Recoil plus SURFLAN 75W
Recoil plus PRINCEP®	Recoil plus KROVAR II	Recoil plus SIMAZINE
Recoil plus CALIBER® 90	Recoil plus SIMAZINE 80W	Recoil plus SURFLAN AS
Recoil plus KROVAR I	Recoil plus RONSTAR 50WP	

When tank mixing with residual herbicides, add an agriculturally approved nonionic surfactant at 0.5 to 1.0 percent by volume of spray solution. See the "TANK MIXING PROCEDURE" section of this label before preparing these tank mixtures. Read and carefully observe the label claims, cautionary statements, recommended use rates and all other information on the labels of all products used in these tank mixtures. Use according to the most restrictive label directions for each product in the mixture.

CONTROL OF EMERGED WEEDS

Note: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

Annual Weeds – Apply 1.2 quarts per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 1.8 quarts per acre when weeds are more than 6 inches tall.

Perennial Weeds – For partial control of perennial weeds using these tank mixtures, apply 2.4 to 6 quarts per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific non-crop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 14.4 to 21.3 fluid ounces per acre of this product in early spring before desirable CRP grasses, such as crested and Tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

DORMANT RANGELAND

This product will control or suppress many weeds in dormant rangeland. Refer to the "WEEDS CONTROLLED SECTION" of this label.

Apply 9.6 to 21.3 fluid ounces per acre of this product in the early spring when the weeds have greened up, but desirable grasses, such as crested and Tall wheatgrass are still truly dormant.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

Do not use additional surfactant or ammonium sulfate when spraying dormant rangeland grasses with this product.

FARMSTEAD WEED CONTROL

When applied as directed for "NON-CROP USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for general nonselective farmstead weed control.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 7.2 to 9.6 fluid ounces per acre. Use 9.6 fluid ounces per acre when treating Tall (coarse) fescue, Fine fescue, Orchardgrass and Quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 7.2 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments in 10 to 20 gallons of spray solution per acre to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Add a nonionic surfactant at a rate of 0.5 to 1.0 percent of the spray solution.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

HABITAT MANAGEMENT

This product is recommended for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as recommended in the "NON-CROP USES" section of this label.

Habitat Restoration and Maintenance

When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

SILVICULTURAL SITES AND RIGHTS-OF-WAY

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NON-CROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 12.7 quarts of this product per acre per year.

Aerial Application – This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release and rights-of-way treatments.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

SITE PREPARATION

Following preplant applications of this product, any silvicultural species may be planted.

POSTDIRECTED SPRAY

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, specially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth. **Do not use additional surfactant with conifer release applications.**

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

For release of the following conifer species:

Douglas fir, Fir, Hemlock, Pines* and Spruce.

*Includes all species except Eastern white pine, Loblolly pine or Slash pine.

Apply 1.8 to 2.4 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1.2 quarts of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1.2 to 1.8 quarts of this product per acre before any major leaf drop of deciduous species.

For release of Western hemlock, apply 1.2 quarts of this product per acre.

For release of the following conifer species:

Eastern white pine, Loblolly pine, Slash pine.

Late Season Application – Apply 1.8 to 2.4 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release Loblolly pine, Eastern white pine and Slash pine by reducing competition from the following species:

Ash	Maple, red	Sassafras
Cherry (Black, Pin)	Oak (Black, Post, Southern	Sourwood
Elm	Red, White)	Sumac (Poison, Smooth,
Hawthorn	Persimmon	Winged)
Locust, black	Poplar, yellow	Sweetgum

RECOIL PLUS SPYDER TANK MIXTURES FOR CONIFER RELEASE FROM HERBACEOUS WEEDS

To release Loblolly pines from herbaceous weeds, tank mixtures of this product with Spyder will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Spyder label, and partial control of the perennial weeds listed below.

Apply 21.3 to 28.8 fluid ounces of this product with 2 to 4 ounces of Spyder in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This product plus Spyder tank mixtures may not be applied by air in California.

This tank mixture may be applied by using aerial equipment. When applying by air, use the recommended rate in 5 to 30 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass	Fescue, tall	Vaseygrass
Broomsedge	Johnsongrass*	Vervain, blue
Dock, curly	Poorjoe*	
Dogfennel	Trumpetcreeper**	

*Control at the higher rates.
**Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

NOTE TO USER

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

CUT STUMP TREATMENTS

Woody vegetation may be controlled by treating freshly cut stumps of trees and re-sprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder	Oak	Sweetgum
Eucalyptus	Reed, giant	Tan Oak
Madrone	Saltcedar	Willow

INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1.2 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak	Poplar	Sweetgum	Sycamore
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This treatment WILL SUPPRESS the following woody species:

Blackgum	Dogwood	Hickory	Maple red
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TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

When applied as directed for "NON-CROP USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

TURFGRASSES

Where existing vegetation is growing in a field or unmowed situation, to actively growing weeds at the stages of growth listed in the of this label.

Where existing vegetation is growing under mowed turfgrass management in such sites as apartment complexes, residential areas and sod farms, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

GRASSES FOR SEED PRODUCTION

Apply this product to actively growing weeds at the stages of growth recommended in the "WEEDS CONTROLLED" section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

DO NOT feed or graze treated areas within 7 days after application.

USE RESTRICTIONS TURFGRASSES AND GRASSES FOR SEED PRODUCTION

Limited to 2 applications per year.

Maximum of 15 pints /acre per application.

Minimum of 21 days between applications

ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHIAGRASS TURF

When applied as directed for "NON-CROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant Bermudagrass and Bahiagrass turf. Refer to the rate table for this product alone under the "RELEASE OF BERMUDAGRASS and BAHIAGRASS" section of this label for recommended rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 21.3 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. DO NOT APPLY TANK MIXTURES of this product plus Spyder in highly maintained turfgrass areas.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS

NOTE: Use only in areas where Bermudagrass or Bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Spyder only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for "NON-CROP USES" under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant Bermudagrass or Bahiagrass. This product may be tank mixed with Spyder as recommended for residual control. Make applications to dormant Bermudagrass or Bahiagrass. Tank mixtures of this product plus Spyder may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Spyder on Bermudagrass or more than 0.5 ounces per acre on Bahiagrass, or treat when these grasses are in a semi-dormant condition.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated.

For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below:

Apply the recommended rates of this product alone or as a tank mixture in 10 to 25 gallons of water, plus 0.5 to 1.0 percent nonionic surfactant by total spray volume per acre.

For the best recommendation for the mixture of weeds within your geographic area, contact your Nufarm sales representative.

WEEDS CONTROLLED OR SUPPRESSED WITH RECOIL*						
WEED SPECIES	RECOIL (Fluid Ounces / Acre)					
	9.6	14.4	21.3	28.8	38.4	76.8
Barley, little	S	C	C	C	C	C
Bedstraw, catchweed	S	C	C	C	C	C
Bluegrass, annual	S	C	C	C	C	C
Chervil	S	C	C	C	C	C
Chickweed, common	S	C	C	C	C	C
Clover, crimson	.	S	S	C	C	C
Clover, large hop	.	S	S	C	C	C
Fescue, tall	S	S
Geranium, Carolina	.	.	S	S	C	C
Henbit	.	S	C	C	C	C
Ryegrass, Italian	.	.	S	C	C	C
Speedwell, corn	S	C	C	C	C	C
Vetch, common	.	.	S	C	C	C

NOTE: C = Control S = Suppression *These rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

When applied as directed, this product will aid in the release of Bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section of this and the Spyder label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed on this label, use 1.2 to 3.6 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the "WEEDS CONTROLLED" section of this label for proper stage of growth.

- | | | | |
|------------------|---------------|-------------------|------------|
| Bahiagrass | Fescue, tall | Trumpet creeper** | Vaseygrass |
| Bluestem, silver | Johnsongrass* | | |

*Control at the higher rate

**Suppression at higher rates only

This product may be tank-mixed with Spyder. If tank-mixed, use no more than 1.2 to 2.4 pints per acre of this product with 1 to 2 ounces of Spyder per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the "WEEDS CONTROLLED" section of this booklet and the Spyder label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

- | | | |
|------------------|---------------|-------------------|
| Bahiagrass | Dogfennel | Trumpet creeper** |
| Bluestem, silver | Fescue, tall | Vaseygrass |
| Broomsedge | Johnsongrass* | Vervain, blue |
| Dock, curly | Poorjoe** | |

*Suppression at higher rates only

**Control at the higher rates

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store this product near fertilizers, seeds, insecticides, or fungicides. Do not store near heat or open flame. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal". For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification. Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law and may contaminate ground water. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Metal Containers: Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. **Plastic Containers:** Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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