

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

March 4, 2021

Kristen Cianni Regulatory Specialist Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

Subject: Label Amendment – Revised spray volume rates

Product Name: A364.01

EPA Registration Number: 91234-87 Application Date: September 2, 2020

Decision Number: 566840

# Dear Kristen Cianni:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Aleah Holt at 703-347-0482 or by email at holt.aleah@epa.gov.

Sincerely,
Emily Schmid

Emily Schmid, Product Manager 25

Herbicide Branch

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

# ACCEPTED

3/4/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 04004 07

91234-87

[Note to reviewer: [Text] in brackets denotes optional or explanatory language [Note to reviewer: {Text} in braces denotes where in the final label text will appear

# **{BOOKLET FRONT PANEL LANGUAGE}**

# **RESTRICTED USE PESTICIDE**

Due to acute toxicity. For retail sale to and use only by certified applicators – **NOT** to be used by uncertified persons working under the supervision of a certified applicator.

PARAQUAT DICHLORIDE | GROUP 22 HERBICIDE

# A364.01<sup>[TM]</sup>

[Alternate Brand Name: Purgatory, Purgatory 3 SL]
[Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.]

Active Ingredient:	(% by weight)
Paraquat dichloride: 1,1'-dimethyl-4,4'-bipyridinium dichloride:	43.2%
Other Ingredients:	<u>56.8 %</u>
Total	100.0%
Contains 3.0 pounds paraquat cation per gallon as 4.05 pounds of paraquat dichloride salt per g	gallon.
Contains emetic and stench (odor)	

Contains paraguat, the active ingredient used in Gramoxone®

# KEEP OUT OF REACH OF CHILDREN

# **DANGER**



#### POISON

READ ENTIRE LABEL PRIOR TO USING THIS PRODUCT IN THE CASE OF AN ACCIDENT, SEEK IMMEDIATE MEDICAL ATTENTION.

SYMPTOMS ARE PROLONGED, PAINFUL, AND CAN BE FATAL.

If you do not understand the label, find someone to explain it to you in detail.

# MANTENER FUERA DEL ALCANCE DE LOS NIÑOS

# **PELIGRO**



# VFNFNO

LEA LA ETIQUETA COMPLETA ANTES DE USAR ESTE PRODUCTO. EN CASO DE ACCIDENTE, BUSQUE ATENCIÓN MÉDICA INMEDIATA. LOS SÍNTOMAS SON PROLONGADOS, DOLOROSOS, Y PUEDEN SER MORTALES.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

- IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID. SYMPTOMS ARE PROLONGED AND PAINFUL.
- CORROSIVE TO SKIN AND EYES. / CORROSIVO PARA LA PIEL Y LOS OJOS.
- NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES. / NUNCA TRANSFEIERA ESTE PRODUCTO A RECIPIENTES PARA COMIDA O DE BEBIDAS O RECIPIENTES NO EXPLÍCITAMENTE PREVISTOS PARA PLAGUICIDAS.
- DO NOT USE OR STORE IN OR AROUND THE HOME.
- DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
- THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

#### **FIRST AID**

Contains Paraquat, a Bipyridylium Herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If Swallowed:	<ul> <li>Call a poison control center or doctor IMMEDIATELY for treatment advice.</li> <li>SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an adsorbent such as activated charcoal, bentonite or Fuller's Earth.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If Inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If in Eyes:	<ul> <li>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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on Skin or Clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> </ul>
	Call a poison control center or doctor for treatment advice.

**NOTE TO PHYSICIAN:** Administer either activated charcoal (100 g for adults or 2.0 g/kg body weight in children) or Fuller's Earth (15% solution; 1.0 liter for adults or 15.0 ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning. Probable mucosal damage may contraindicate the use of gastric lavage.

# **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 SafetyCall at **1-844-685-9173** for emergency medical treatment information.

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

See inside label booklet for Precautionary Statements and Directions for Use.

EPA Reg. No.: 91234-87

**EPA Est. No.:** 

# **Net Weight:**

# Manufactured For:

Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

A364.01 is not manufactured, or distributed by Syngenta Crop Protection, Inc., seller of Gramoxone®.

# **{LANGUAGE INSIDE BOOKLET}**

- DANGER Fatal if Swallowed or Inhaled.
- Causes Severe Eye Injury.
- · Corrosive to Skin.
- NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES.
- Store Tightly Closed in Original Container, and in A Locked Place Away from Children and Animals.
- Never Use this product in Residential or Public Recreational Settings (e.g., Homes, Home Gardens, Schools, Recreational Parks, Golf Courses, and/or Playgrounds).
- This product Is TOXIC! An alerting agent (odor) has been added to help prevent accidental ingestion.
- See Back of Product Container for Important Safety Information.

- **PELIGRO** Mortal Si Se Ingiere o Inhala.
- Causa Lesiones Graves En Los Ojos.
- Corrosivo Para La Piel.
- NUNCA TRANSFEIERA ESTE PRODUCTO A RECIPIENTES PARA COMIDA O DE BEBIDAS O RECIPIENTES NO EXPLÍCITAMENTE PREVISTOS PARA PLAGUICIDAS.
- Guarde Bien Cerrado En El Envase Original Y En Un Lugar Cerrado Lejos De Niños Y Animales.
- Nunca Use Este Producto En Áreas Residenciales
   O Públicas (Como Hogares, Jardines, Escuelas,
   Parques Recreativos, Campos De Golf, O Salones
   De Juegos).
- ¡Este Producto Es Tóxico! Se Ha Agregado Un Agente De Alerta (Olor) Para Ayudar A Prevenir Su Ingestión Accidental.
- La Parte Posterior Del Envase Del Producto Tiene Información De Seguridad Importante.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER/PELIGRO



## POISON/VENENO

Fatal if inhaled. Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through skin. Do not breathe spray mist. 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. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

# **Personal Protective Equipment (PPE)**

Applicators and other handlers (other than mixers and loaders) must wear:

- A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with a HE filter
- Protective eyewear
- Long-sleeved shirt
- Long pants
- Socks and shoes
- Waterproof gloves

## Mixers and loaders must wear:

- A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with a HE filter
- Face shield
- Long-sleeved shirt
- Long pants
- Socks and Shoes
- Waterproof gloves
- Chemical resistant apron

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

# **ENGINEERING CONTROLS STATEMENT**

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

# **USER SAFETY RECOMMENDATIONS**

# **Users Should:**

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

# **ENVIRONMENTAL HAZARDS**

This product is toxic to wildlife. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is toxic to nontarget crops and plants if off-target movement occurs because it desiccates all

green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off- target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

# PHYSICAL AND CHEMICAL HAZARDS

This product is mildly corrosive to aluminum and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers. Do not use this product in or around strong oxidizing/reducing agents.

# **CERTIFIED APPLICATOR TRAINING**

Applicators must complete an EPA-approved paraquat training listed on the following website: https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators. The training must be completed a minimum of every three years.

# **DIRECTIONS FOR USE**

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

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

NEVER USE THIS PRODUCT IN RESIDENTIAL OR PUBLIC RECREATIONAL SETTINGS (e.g., HOMES, HOME GARDENS, SCHOOLS, RECREATIONAL PARKS, GOLF COURSES, AND/OR PLAYGROUNDS).

# AGRICULTURAL USE REQUIREMENTS

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

For early postemergence broadcast in peanuts and dormant season applications, chemical fallow, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

For harvest aid and desiccation application and preplant or preemergence (broadcast or banded), and post-emergence directed spray applications: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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

- Coveralls,
- Waterproof gloves,
- Shoes plus socks 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 greenhouses.

DO NOT enter or allow others to enter the treated area until sprays have dried. AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift. Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

# PRODUCT USE INSTRUCTIONS AND INFORMATION

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

When this product is applied at less than 10.0 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

FOR CONTAINERS WITH CAPACITIES LESS THAN 120 GALLONS: This product must only be removed from the original container with a closed transfer system. Any subsequent transfer of this product must utilize a closed transfer system. Any attempt to circumvent the closed transfer system is prohibited.

FOR CONTAINERS WITH CAPACITIES GREATER THAN OR EQUAL TO 120 GALLONS: A closed transfer system is not required.

# WEED RESISTANCE MANAGEMENT

For resistance management, A364.01 is a Group 22 herbicide. Any weed population may contain or develop plants naturally resistant to A364.01 and other Group 22 herbicides. Weed species with acquired resistance to Group 22 herbicides may eventually dominate the weed population if Group 22 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by A364.01 or other Group 22 herbicides. Users should scout before and after application.

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

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

To delay herbicide resistance:

- Avoid the consecutive use of A364.01 or other target site of action Group 22 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the
  involved products are all registered for the same use, have different sites of action and are both effective
  at the tank mix or prepack rate on the weed(s) of concern (an herbicide mode of action classification by
  itself may not adequately address specific weeds that are resistant to specific herbicides)
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.

- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide
  resistance management and/or integrated weed management recommendations for specific crops and
  resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your retailer, or representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

## INTEGRATED PEST MANAGEMENT

A364.01 may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your State cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## SPRAY DRIFT INFORMATION

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

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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

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

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

# Aerial Drift Reduction Advisory Information

# Information on Droplet Size

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

# Controlling Droplet Size:

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower

pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

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

# Boom Length

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

# **Application Height**

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

# Swath Adjustment

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

#### Wind

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

# Temperature and Humidity

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

# Temperature Inversions

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

# Sensitive Areas

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

# PRODUCT USE INFORMATION

This product is a liquid formation containing 3.0 pounds of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

## APPLICATION

This product is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because this product is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because this product requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with this product.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up this product.

#### **ROTATIONAL CROPS**

After the last application of this product, all rotational crops may be planted immediately.

# **RAINFASTNESS**

Rain occurring 30 minutes or more after application will have no effect on the activity of this product because it is rapidly absorbed by the weed foliage.

#### USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the specified rates or there will be a reduction in efficacy of this product.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50 to 74% surface-action agent at 0.25% v/v (2.0 pints per 100 gallons), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1.0 pint per 100 gallons), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2.0 pints per 100 gallons) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains 15 to 20% approved emulsifier, with 1.0% v/v, (1.0 gallon per 100 gallons) of the finished spray volume. Add 1.0 pint of crop oil concentrate per acre for aerial applications. For cotton harvest aid, do not use crop oil concentrate when using this product.

# **NOZZLE SELECTION**

The use of flat-fan nozzles is the most effective application of this product. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20.0 gallons of spray carrier per acre using the following table.

Nozzle Type and Spray Pressure Setup

	Nozzle Type		
	Flat Fan	Flood	
Maximum Size	8	15	
Spray Pressure (at nozzle)	30 to 50 psi	30 to 50 psi	
Maximum Nozzle Spacing	30"	40"	
Direction of Spray Pattern	Down	Down	
Maximum Speed	10 mph	10 mph	
Spray Overlap (at each edge)	30%	50%	

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

#### SPRAY CARRIER

This product may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher specified rate of this product and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant is still be used with this product. The use of liquid fertilizer carriers are not substitutes for surfactants.

## **RATES OF THIS PRODUCT**

With each use, follow rates listed in the following tables under APPLICATION INSTRUCTIONS. When weeds are larger or are dense, use the higher specified label rates. For use as a harvest aid, use higher specified rate when crop vegetation is dense.

# SPRAY VOLUME

With each use, follow rates listed in the following tables under APPLICATION INSTRUCTIONS. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because the volumes listed are minimum volumes only.

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20.0 GALLONS OF SPRAY CARRIER PER ACRE.

# **APPLICATION TIMING**

Make applications to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1 to 6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2 to 4 inches, in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

# BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when this product is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

# **ENVIRONMENTAL CONDITIONS**

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However, these conditions will slow the activity of this product.

#### TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing.

# Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix this product with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of this product. This allows this product to thoroughly distribute throughout a treated leaf, thus achieving better control than if this product was applied alone.

This Product may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide (atrazine, 100-497) 352-444)

Bicep MAGNUM® Herbicide (atrazine + S- Linex® Herbicide (linuron, 61842-21) metolachlor, 100-886)

Canopy® Herbicide (metribuzin + chlorimuron-ethyl, Princep® Herbicide (simazine, 100-526)

#### Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass Knotweed Pennsylvania smartweed Volunteer wheat

Broadleaf signalgrass Kochia Perennial weeds (suppression only)

Cheatgrass Lambsquarters Prickly lettuce

Cocklebur Malva (cheeseweed) Sedges

Fall panicum Marestail Tansy mustard Giant ragweed Morning glory Velvetleaf

# Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide (dicamba, 66330-276) will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult-to-control annual broadleaf weeds such as giant ragweed or morning glory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with this product.

# Order of Tank Mixing

Mix this product and other listed products as follows:

- 1. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
- 2. Begin tank agitation and continue throughout mixing and spraying.
- 3. Add dry formulations (WP, DF, etc.) to tank.
- 4. Add liquid formulations (SC, EC, L, etc.) to tank.
- 5. Add this product to tank.
- 6. Add nonionic surfactant to tank.
- 7. Fill remainder of spray tank.

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank mix compatibility (a.k.a., jar testing) is prohibited. Consult your Atticus, LLC representative for compatible

tank mix products.

# PRODUCT USE PRECAUTIONS AND RESTRICTIONS

#### **EQUIPMENT**

This product is corrosive to aluminum. Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of this product may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

# **PRECAUTIONS**

- Unless otherwise indicated, this product will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damaged when they come in contact with plastic mulch used for
  preplant weed control and that has been treated with this product. To prevent damage to the crop,
  sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.
- This product will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

## RESTRICTIONS

- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Never use this product in residential or public recreational settings (e.g. homes, home gardens, schools, recreational parks, golf courses, and/or playgrounds).
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- Application methods listed on this label are the only permissible application methods.

[Note to reviewer: "Continued" may be added to the Crop column if the box is split due to formatting of the final printed label.]

# **APPLICATION INSTRUCTIONS**

Crop	Weeds	Use Pattern	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
ALFALFA[*] (California only) New	-	Broadcast	Ground: 10.0 gal Air: 5.0 gal	70
seedlings			· ···· · · · · · · · · · · · · · · · ·	

# Directions

Make applications during late winter or early spring.

## Precautions

- Alfalfa foliage present at time of application will be burned.
- Replanting may be needed due to the reduction of seedling stands.

# Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 1.3 pt/A of this product per year.
- Do not make more than one application per year.
- Do not cut or harvest within 70- days after application.
- Do not apply to seedling alfalfa grown for seed.

# [\*][Not For Use in [California] [New York]]

ALFALFA[*]	_	Broadcast	1.7 to 2.7 pt	Ground: 10.0 gal	
		Divaucast	1.7 το 2.7 ρτ	•	
Preplant or		or		Air: 5.0 gal	
Preemergence (No-till		Banded			
or conventional		Over			
planting)		Row			

# Directions

- Apply prior to emergence of the crop.
- Avoid disturbing soil when seeding.

# **Precautions**

• Crop plants emerged at time of application will be killed.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 2 applications per year.

ALFALFA[*]	Weeds, including:	Broadcast	1.3 to 2.0 pt	Ground: 10.0 gal	42
Dormant season	Bluegrass[*], chickweed[*],			Air: 5.0 gal	
Established plantings	henbit[*], downy brome[*],				
	Ryegrass[*], cheatgrass[*],				
Region A - See table at	dogfennel[*], tansymustard[*],				
end of Alfalfa section	London Rocket[*],				
	Sowthistle[*], rescue brome[*],				
	wild oats[*], and other				
	winter annuals[*]; and				
	Suppression of perennial				
	weeds[*].				

Crop	Weeds	Use Pattern		Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
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- After the crop is dormant, apply to well-established stands that are at least 1-year old.
- For improved and longer-lasting weed control, tank mix with metribuzin.

# Precautions

• Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned.

#### Restrictions

- Do not apply more than 2.0 pt/A of this product in a single application.
- Do not apply more than 2.0 pt/A of this product per year.
- Do not make more than one application per year.
- Fall Re-growth: Do not apply if last cutting is greater than 6".
- Spring Re-growth: Do not apply if last cutting is greater than 2".
- Do not cut or harvest within 42- days after application.

[\*][Not For Use in [California] [New York]]

ALFALFA[*]	Weeds, including:	Broadcast	0.7 to 1.3 pt	Ground: 10.0 gal 42
Dormant season Tank	chickweed[*], downy			Air: 10.0 gal
	brome[*] and			
Mix with hexazinone	tansy mustard[*].			
Region A - See table at				
end of Alfalfa section				

# Directions

- When weeds are less than 4 inches tall, apply at 0.7 pint rate of this product.
- Mix this product with labeled rate of hexazione per acre.
- Use lower rate of hexazione on loamy sands or sandy loams.
- During the dormant season, make one application to established alfalfa stands.

#### **Precautions**

- Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost.
- Temporary chlorosis-may occur on alfalfa regrowth.

# Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 2 applications per year.
- Fall Regrowth: Do not apply if last cutting is greater than 6 inches.
- Spring Regrowth: Do not apply if last cutting is greater than 2 inches.
- Do not apply to alfalfa during the first season after seeding.
- DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result.
- Do not cut or harvest within 42 days after application.

Crop	Weeds	Use Pattern	This Product Rate/ Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
ALFALFA[*] Dormant Season On established plantings: Region B -See table at the end of the Alfalfa section.	Weeds including:  London rocket[*], sowthistle[*], rescue brome[*],wild oats[*], chickweed[*],ryegrass[*], bluegrass[*],cheatgrass[*], dogfennel[*],tansymustard [*],henbit[*],downy brome[*],and other winter annuals[*];and	Broadcast	0.7 to 1.3 pt	Ground: 10.0 gal Air: 5.0 gal	60
ALFALFA[*] Dormant Season On fall-seeded newly established stands less than 1-year-old: Region A -See table at the end of the Alfalfa section.	california Desiccation of weeds including bluegrass[*], ryegrass[*], shepherds purse[*], chickweed [*],	Broadcast	0.7 to 1.3 pt	Ground: 10.0 gal Air: 5.0 gal	60
ALFALFA[*] Dormant Season On fall-seeded newly established stands less than 1-year-old: Region B -See table at the end of the Alfalfa section.	tanseymustard[*], foxtail[*], sowthistle[*] and groundsel[*].	Broadcast	0.5 to 0.8 pt	Ground: 10.0 gal Air: 5.0 gal	60

- Make applications before first spring cutting and during late fall or winter months after the last fall cutting.
- For improved and residual weed control in dormant established (at least 1-year-old) alfalfa, tank mix with metribuzin. Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old.

# **Precautions**

Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green alfalfa foliage present at time of application will be burned.

• If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weedweight.

# Restrictions

- Do not make more than one application per year.
- California: Do not apply if spring regrowth after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties.
- All other areas within Region B: Do not apply if regrowth after grazing or cutting is more than 2 inches.
- Do not harvest within 60 days of application.

# California

• If ryegrass, shepherdspurse, sowthistle, or groundsel are present use higher specified rate.

Crop	Weeds	Use Pattern		Minimum Total	Grazing or Preharvest Interval (Days)
ALFALFA[*] (East of the Rocky Mountains) Between- cuttings treatment in established plantings. (Includes first year alfalfa)		Broadcast	0.7 pt	Ground: 10.0 gal	30

- Make applications immediately after alfalfa has been removed for hay or silage.
- Apply as needed up to three times during the growing season in addition to a dormant application.

#### **Precautions**

- Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment.
- A reduction in first year alfalfa stands and yields may occur if alfalfa is allowed to regrow more than 2 inches.
- Burning of alfalfa foliage will occur at time of application.
- Weed control may be reduced where moisture is limited such as in arid climates.

# Restrictions

- Do not apply more than 0.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Do not treat more than 5 days after cutting.
- Do not cut or harvest within 30 days of application.
- Do not make more than 2 applications during the first growing season of first-year alfalfa.

[\*][Not For Use in [California] [New York]]

	Rate,	/Acre*
For control of:	For Suppression	For Control
Annual Bluegrass[1]	-	10.7 to 21.3 fl oz
Chickweed[1]	-	10.7 to 21.3 fl oz
Fiddleneck[1] (6 inches tall or less)	5.4 to 10.7 fl oz	21.3 fl oz
Red Maids[1] (6 inches tall or less)	-	10.7 to 21.3 fl oz
Shepherdspurse[1]	10.7 to 21.3 fl oz	-
Spikeweed[1] (4 inches tall or less)	5.4 fl oz	10.7 to 16.0 fl oz
Volunteer Small Grain[1] (8 inches, tall or less)	5.4 to 10.7 fl oz	21.3 fl oz

<sup>\*</sup>Use the 5.4 fluid ounce rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fluid ounce rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fluid ounce only when there are 9 trifoliate leaves.

[1][Not For Use in [California] [New York]]

# Alfalfa - Regions

## **REGION A**

Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

# **REGION B**

Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi; New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	I This Product Rate/ Acre	_	Grazing or Preharvest Interval (Days)
ALMONDS[*]	Directed Spray	0.8 to 2.7 pts	Ground: 10.0 gal	-

- Avoid allowing spray to contact green stems (except suckers) orfoliage.
- When spraying around young trees use a shield or wrap plant.

## **Precautions**

• Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 13.3 pt/A of this product per year.
- Do not make more than 5 applications per year.
- Do not graze treated areas and do not feed cover crops grown in treated areas to livestock.
- Minimum Application Interval: 7 days
- Do not apply when nuts to be harvested are on the ground.

[\*][Not For Use in [California] [New York]]

ARTICHOKE (GLOBE)[*]	Directed Spray	1.7 to 2.7 pts	Ground: 20.0 to 100 gal	1

## Directions

Applications must be made at least 7 days apart.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Do not exceed 8.0 pints per year.
- Do not harvest within 24 hours of last application.

[\*][Not For Use in [California] [New York]]

ASPARAGUS[*]	Preplant or	1.7 to 2.7 pts	Ground: 10.0 gal	-
	Preemergence Broadcast		Air: 5.0 gal	
	or Banded Over-Row			

### Directions

• Application should be made prior to emergence of the crop.

### **Precautions**

• Emerged asparagus at time of application will be killed.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 1 application per year.

[\*][Not For Use in [California] [New York]]

ASPARAGUS[*]	Broadcast or Banded	1.7 to 2.7 pts	Ground: 10.0 gal	6
Preemergence to	Over-Row			
established plantings at				
least 2 years old				

# Directions

Application should be made prior to emergence of the crop or after last harvest.

# Precautions

• Emerged asparagus at time of application will be killed.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 1 application per year.

BEANS, DRY[*] Adzuki beans[*] Asparagus beans[*] Black beans[*] Broad beans[*] Field beans[*] Garbanzo beans[*] Garin lupin[*] Guar[*] Moth beans[*] Mung beans[*] Navy beans[*] Ninc beans[*] Rice beans[*] White sweet lupin[*] Tepary beans[*] White sweet lupin[*] White sweet lupin[*] PEAS, DRY[*] Blackeyed peas[*] Catjang[*] Chickpeas[*] Chickpeas[*] Chopeas[*] Cowpeas[*]	Crop	Use Pattern	I This Product Rata/ Acra	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
Crowder peas[*] Southern peas[*]	Adzuki beans[*] Asparagus beans[*] Black beans[*] Broad beans[*] Field beans[*] Garbanzo beans[*] Grain lupin[*] Guar[*] Kidney beans[*] Lablab beans[*] Moth beans[*] Mung beans[*] Pinto beans[*] Rice beans[*] Sweet lupin[*] Tepary beans[*] Urd beans[*] White sweet lupin[*] White lupin[*] PEAS, DRY[*] Blackeyed peas[*] Catjang[*] Chickpeas[*] Crowder peas[*]	Harvest-Aid	0.8 to 1.3 pts	Ground: 20.0 gal	

- Add nonionic spreader at 1.0 quart per 100 gallons of spray mix.
- Use a single application of the higher specified rate for vining type beans or bush type with lush growth.
- May also be applied as a split application and improve vine coverage. However, do not make more than 2 applications per year or exceed a total of 1.3 pints per acre.
- Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green.

# Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 1.3 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included.
- Not registered for use in dry beans and dry peas in California.

Crop	Use Pattern	This Product Rate/ Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
BERRIES[*]	Postemergence	1.3 to 2.7 pts	Ground: 50 gal	-
Blackberry[*]	Directed Spray			
Blueberry[*]				
Boysenberry[*]				
Currant[*]				
Elderberry[*]				
Gooseberry[*]				
Huckleberry[*]				
Loganberry[*]				
Raspberry[*]				

- Apply before emergence of new canes or shoots to avoid injury.
- Apply as a coarse spray to prevent crop injury.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.

[\*][Not For Use in [California] [New York]]

CACAO[*]	Directed Spray	1.3 to 2.7 pts	Ground: 50.0 to 200 gal	1

## Directions

- Apply when weeds are succulent and growth is from 1 to 6".
- Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result.

# **Precautions**

• Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 5.3 pt/A of this product per year.
- Do not make more than 5 applications per year.
- Minimum Application Interval: 7 days
- Do not spray under windy conditions.
- Do not graze treated areas or feed treated cover crops to livestock.

[\*][Not For Use in [California] [New York]]

CASSAVAS & YAMS	Shielded Post	1.3 pts	Ground: 50.0 gal	90	
(Puerto Rico only)	Directed Spray				

# Directions

- Make applications when weeds are succulent and growth is 1 to 6 inches.
- Prevent spray from contacting crop to prevent injury to crop.

# Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Cassavas: Do not make more than 3 applications per year.
- Yams: Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not spray under windy conditions.
- Do not graze treated areas or feed treated forage to livestock.

**Product Information for Chemical Fallow** 

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with this product. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or bandtreatment.
- Before applying this product, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2 to 3 inches after harvest.
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds.
- It is permissible to tank mix with registered residual herbicide combinations other than those listed for extended weed control during the fallow period.
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5.0 gallons for ground and 5.0 gallons for air applications.
- Apply 5.0 to 60.0 gallons spray mix per acre by ground application.
- When applying at less than 10 gallons per acre by ground:
  - Do not apply with floaters or exceed a speed of 10 mph.
  - Apply with flat fan nozzles at 30 to 40 psi.
  - Apply only in a tank mix with atrazine at a minimum of 0.5 pound active ingredient per acre.
  - o By air: apply in 5.0 to 10.0 gallons of spray mix per acre.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
CHEMICAL FALLOW[*] Continuous Wheat[*] (2 to 3 month Recropping interval)	Broadcast	Weeds 1 to 3": 1.3 to 1.7 pts Weeds 3 to 6": 1.7 to 2.0 pts Weeds 6": 2.0 to 2.7 pts	_	-

- Apply at least 45 days before seeding.
- For volunteer wheat or downy brome control in spring, use at least 1.3 pints of this product per acre with a photosynthetic inhibitor herbicide.
- Refer to the section "Product Information for Chemical Fallow".

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

# [\*][Not For Use in [California] [New York]]

CHEMICAL FALLOW[*]	Broadcast	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
Wheat-Fallow[*]-Wheat		Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
Rotations (Fall applied		Weeds 6": 2.0 to 2.7 pts	_	
after harvest: seeded 12				
to 14 months later)				

#### Directions

- Spray before weeds produce seeds.
- Control of volunteer wheat and downy brome increases when applications are made late August or early September.
- For improved burndown-and residual control of weeds, tank mix with atrazine, Marksman® Herbicide (atrazine + dicamba, 7969-136), or Command® Herbicide (clomazone, 279-3150).
- For improved burndown and residual control of grass and broadleaf weeds, tank mix with metribuzin. Refer to the section "Product Information for Chemical Fallow".

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
CHEMICAL FALLOW[*] Wheat-Fallow[*]- Wheat Rotations (Spring applied: seeded 3 to 5 months later)	Broadcast	Weeds 1 to 3": 1.3 to 1.7 pts Weeds 3 to 6": 1.7 to 2.0 pts Weeds 6": 2.0 to 2.7 pts	Ground: 5.0 gal Air: 5.0 gal	-

- To conserve moisture, application should be made March 1 to April 15, prior to spring rains.
- Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage.
- For volunteer wheat or downy brome control in spring, use at least 1.3 pint of this product per acre with a photosynthetic inhibitor herbicide. Refer to the section "Product Information for Chemical Fallow".
- For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

[\*][Not For Use in [California] [New York]]

CHEMICAL FALLOW[*]	Broadcast	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
Wheat-Annual[*]		Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
Crop <sup>1</sup> –Wheat Rotations		Weeds 6": 2.0 to 2.7 pts		
(Fall applied in wheat				
stubble)				

Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

#### Directions

- For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Make applications after wheat harvest and before weeds produce seed.
- If grasses such as foxtails or barnyardgrass recover, respray before seed production.
- Applications made late August to November help control volunteer wheat and downy brome.
- Refer to the section "Product Information for Chemical Fallow".

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

CHEMICAL FALLOW[*]	Broadcast	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
Wheat-Annual[*]		Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
Crop-Wheat Rotations		Weeds 6": 2.0 to 2.7 pts		
(Spring applied prior to				
planting an annual				
crop <sup>1</sup> )				

Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

## Directions

- For enhanced burndown and residual weed control, tank mix with Atrazine.
- For volunteer wheat or downy brome control in spring, use at least 1.3 pint of this product per acre with a photosynthetic inhibitor herbicide.
- Refer to the section "Product Information for Chemical Fallow".
- Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

Crop	Weeds	Use Pattern		Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
CLOVER[*] AND OTHER LEGUMES[*] Including velvetbean, [*] lespedeza[*], lupine, [*] sainfoin[*], trefoil[*], vetch[*], crown vetch[*], and milk vetch[*].  Dormant Season: On established plantings: Region A - See table at end of Alfalfa section.	For desiccation of weeds, including London rocket[*], sowthistle[*], rescue brome[*], wild oats[*], chickweed[*], ryegrass[*], bluegrass[*], cheatgrass[*], dogfennel[*], tansymustard[*], henbit[*], and other winter annuals[*], and suppression of perennial weeds.  California: Use for desiccation of weeds including bluegrass[*], ryegrass[*], shepherdspurse[*], chickweed[*], tansy mustard[*], foxtail[*], sowthistle[*] and groundsel[*].	Broadcast	1.3 to 2.1 pts	Ground: 10.0 gal Air: 5.0 gal	60
Dormant Season: On established Plantings[*]: Region B-See table at end of Alfalfa section.		Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal Air: 5.0 gal	60
Dormant Season: On fall- seeded Newly established stands less than 1-year- old[*]: Region A - See table at end of Alfalfa section.		Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal Air: 5.0 gal	60
Dormant Season: On fall-seeded Newly established stands less than 1-year- old[*]: Region B - See table at end of Alfalfa section.		Broadcast	0.5 to 0.8 pts	Ground: 10.0 gal Air: 5.0 gal	60

- Make applications during late fall or winter months after the last cutting and before first spring cutting.
- [In California: If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher specified rate.]

# Precautions

- CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes foliage present at the time of application.
- Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application.
- If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly proportionate to the loss of weed weight.

## Restrictions

- Do not apply more than 2.1 pt/A of this product in a single application.
- Do not apply more than 2.1 pt/A of this product per year.
- Do not make more than 1 application per year.
- Do not apply if regrowth after grazing or cutting is more than 2 inches.
- Do not harvest within 60 days of application.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
CORN[*], FIELD CORN[*],	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 10.0 gal	-
POPCORN[*], SWEET	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
CORN[*], SEED CORN[*]	Broadcast or Banded	Weeds 6": 2.0 to 2.7 pts		
(Used alone)	Over Row			

- Includes field, fresh sweet, forage, fodder and popcorn.
- To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible.
- Seeding should be done with a minimum amount of soil disturbance.

#### **Precautions**

• Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

# [\*][Not For Use in [California] [New York]]

CORN[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 10.0 gal	-
Tank mixes for	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
no-till/reduced till	Broadcast or Banded	Weeds 6": 2.0 to 2.7 pts		
	Over Row			

## Directions

- Make applications as broadcast sprays before, during or after planting, but before crop emergence.
- This product may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile), Harness® (acetochlor, 524-473), Harness® Extra (acetochlor + atrazine, 524-480), AAtrex®/Atrazine, alachlor, Banvel®, Linex®, Bicep MAGNUM®, Lorox®, Princep®, Dual MAGNUM (S-metolachlor, 34704-854), Stealth® (pendimethalin, 34704-868), Frontier® (dimethenamid, 7969-144), Simazine®, (atrazine + dimethenamid, Surpass® EC (acetochlor, 62719-367), Harmony® Extra Herbicide (thifensulfuron + tribenuron-methyl, 279-9583), Surpass® 100 ethaneperoxic acid + hydrogen peroxide, 1677-189), (Preplant only) Topnotch® (acetochlor, 62719-369).
- This product may also be tank mixed with Ambush® insecticide.
- It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Always refer to respective product label(s) to confirm if these products can be applied by air.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
FIELD CORN[*],	Postemergence	0.7 to 1.3 pts	Ground: 10.0 gal	-
POPCORN[*] SWEET	Directed Spray			
CORN[*],	(including Hooded or			
SEED CORN[*]	Shielded)			

- Make applications when weeds are actively growing.
- Use a higher specified rate on larger or hard to control weeds. Weeds 6 inches or taller may not be controlled.

## **Precautions**

Severe damage and/or complete kill can occur if spray contacts corn plants.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

## DIRECTIONS FOR HOODED OR SHIELDED SPRAYERS

- Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity.
- Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. DIRECTIONS FOR DIRECT SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS

(Corn height is measure from soil surface to top of whorl)

#### Directions

- Apply when corn is at least 10 inches tall with nozzles arranged to spray no higher than the lower 3 inches of corn stalks.
- For corn more than 20 inches tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks.

#### Precautions

- Corn plants shorter than 10 inches may be injured and not recover.
- Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

[\*][Not For Use in [California] [New York]]

FIELD CORN[*],	Harvest Aid	0.8 to 1.3 pts	Ground: 20.0 gal	7
POPCORN[*] SEED	Broadcast		Air: 5.0 gal	
CORN[*]				

# Directions

- Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer.
- Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v.
- To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18 inches, use 1.3 pts.

# Precautions

Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.

## Restrictions

- Do not apply more than 1.3 pt/A per year of this product.
- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than one application per year.

FIELD CORN[*] ONLY	Postemergence	1.3 pts	Ground: 10.0 gal	-
(grain, fodder, forage)	Directed Spray USDA			
	Witchweed			
	Eradication Program			

- If regrowth occurs, initiate sprays in late June to early July and repeat in early August.
- Follow application instructions in postemergence directed spray section above.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 1.3 pt/A per year of this product.
- Do not make more than 3 applications per year.

# [\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
(grain, fodder, forage) 2,4-D Amine AE Tank	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl oz + 0.5 lb 2,4-D 2,4-D Amine AE	Ground: 10.0 gal	-

## Directions

- Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply.
- Follow application instructions in post-emergence directed spray section above.

#### Restrictions

Do not make more than 3 applications per year.

[\*][Not For Use in [California] [New York]]

#### COTTON

For all cotton uses, do not exceed 8.0 pints of this product (3.0 pound active ingredient) per acre per year.

COTTON[*]	Preplant or	1.7 to 2.7 pts	Ground: 10.0 gal	-
(Used alone)	Preemergence		Air: 5.0 gal	

## Directions

- Apply prior to, during or after planting but before crop emergence.
- For fallow bed treatment, beds should be pre-formed to permit maximum weed and grass emergence prior to treatment.
- Seeding should be done with a minimum of soil disturbance.

# Restrictions

- Do not apply more than 8.0 pt/A per year of this product (3.0 lb ai)
- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

# [\*][Not For Use in [California] [New York]]

COTTON	Preplant	5.4 to 10.7 fl oz	Ground: 10.0 gal	-
(California only;			Air: 5.0 gal	
Used alone)				

# Directions

• For control of volunteer barley in preformed seedbeds.

# Restrictions

- Do not apply more than 8.0 pt/A per year of this product (3.0 lb ai)
- Do not apply more than 10.7 fl oz/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

COTTON[*]	Preplant or Fallow	1.7 to 2.7 pts	Ground: 10.0 gal	-
Goal® Herbicide	Bed Broadcast		Air: 10.0 gal	
Tank Mix				
(oxyfluorfen,				
92894-2)				

• Refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use.

Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# Restrictions

- Do not apply more than 8.0 pt/A per year of this product (3.0 lb ai)
- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
COTTON[*]	Preplant or	1.7 to 2.7 pts	Ground: 10.0 gal	-
Other Tank Mixes	Preemergence		Air: 5.0 gal	

- Apply as a broadcast spray before, during or after planting, but before crop emergence.
- For improved residual control or burndown, this product may be tank mixed with the following herbicides: Caparol® Herbicide (prometryn, 100-620), fluometuron, Diuron® (diuron, 34704-854), Dual MAGNUM®, Harmony Extra (Preplant Only), MSMA, Stealth®, norflurazon.
- When tank mixing with fluometuron, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective labels.

#### Restrictions

- Do not apply more than 8.0 pt/A per year of this product (3.0 lb ai)
- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

\*][Not For Use in [California] [New York]]

COTTON[*]	Postemergence	0.8 to 1.3 pts	10.0 gal	-	
	Directed Spray				
	(Hooded or Shielded)				

#### Directions

- Apply when weeds are actively growing and between 1 to 6 inches in height.
- If multiple applications are made, allow 14 days between applications.
- Use higher specified rate on dense populations and/or larger or hard-to-control weeds. Weeds 6" or taller may not be controlled.
- AVOID CONTACT WITH CROP. Intentional or accidental contact, including, drift, of this product with the crop may result in severe damage or loss of the crop.
- Apply by directing spray between the rows using hooded or shielded sprayers to prevent contact with the crop plant.
- This product may be tank mixed with other postemergence directed herbicides. Unless otherwise directed on this label, refer to tank mix product labels for rates, directions, limitations and precautions.

# **Precautions**

- Equipment should be in good operating condition. Avoid leakage or dripping onto crop. Variation in equipment design may affect the level of weed control.
- Keep hoods or shields adjusted to insure adequate contact with weeds while shielding the crop from the herbicide.
- To minimize drift, do not use nozzles or nozzle configurations or adjuvants which produce fine spray droplets (mist). Restrictions
- Do not apply more than 4.0 pt/A per year of this product (1.5 lb ai).
- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 14 days

[\*][Not For Use in [California] [New York]]

# **COTTON Harvest Aid Use**

# **Precautions**

- May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. This product can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
- Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

# Restriction

- Do not make more than 4 applications per year.
- Do not pasture livestock in treated fields or feed treatedfoliage.

- Do not apply to cotton within 3 days before harvest.
- Repeat application if necessary. Do not exceed a total of 1.3 pints per acre as a harvest aid.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
SOUTHERN COTTON[*]	Broadcast	5.4 fl oz + 1 pt phosphate or	Ground: 10.0 gal	7
Harvest aid for boll opening and		1.0 gal chlorate	Air: 5.0 gal	

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
defoliation (Tank mix with phosphate and chlorate defoliants)				

• Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature.

#### Precautions

Development of immature bolls will be inhibited.

## Restrictions

• Do not make more than 4 applications per year.

[\*][Not For Use in [California] [New York]]

SOUTHERN COTTON[*]	Broadcast	2.1 to 3.3 fl oz	Ground: 10.0 gal	-
Additional tank mixes for boll			Air: 5.0 gal	
opening and defoliation				

#### Directions

- This product may be tank mixed with the following products to aid in defoliation and opening of mature bolls: Def® (tribufos, 5481-9023), thidiazuron, mepiquat chloride, Folex® Defoliant (tribufos, 5481-504), ethephon.
- Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature.

# **Precautions**

Development of immature bolls will be inhibited.

# Restrictions

- Do not apply more than 3.3 fl oz/A of this product in a single application.
- Do not make more than 4 applications per year.

\*][Not For Use in [California] [New York]]

SOUTHERN COTTON[*]	Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal	3
Post Defoliation - To aid in			Air: 5.0 gal	
opening of mature bolls and to				
desiccate green weeds.				

# Directions

- If weed infestation is heavy or dense, use higher specified rate.
- Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature.
- After a defoliation or conditioning application has been made, delay desiccation application of this product approximately 3 to 7 days to minimize leaf sticking.

#### **Precautions**

• Development of immature bolls will be inhibited.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 4 applications per year.

WESTERN COTTON[*]	Broadcast	3.7 to 5.4 fl oz + phosphate	Ground: 10.0 gal	7
Harvest aid for boll opening and		or sodium chlorate; and/ or	Air: 5.0 gal	
early defoliation		other compatible harvest aid		
		products.		

On rank cotton, use higher specified rate.

## **Precautions**

- Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB).
- Development of immature bolls will be inhibited.

## Restrictions

- Do not make more than 4 applications per year.
- Do not use more than 5.4 fluid ounce of this product for early defoliation as excessive desiccation may occur.
- Do not use more than 4.0 pounds of actual sodium chlorate defoliant per acre at this early defoliation timing.

# [\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
WESTERN COTTON[*] Harvest aid for boll opening and Mid-to-late defoliation	Broadcast	5.4 to 10.7 fl oz alone or tank mix with sodium chlorate or phosphate defoliation and/or other compatible harvest aid products.	-	3 (Alone)

# Directions

• Use the 10.7 fluid ounce rate of this product in desert cotton areas or on rank vigorous cotton.

## **Precautions**

- Mid-to-late defoliation timing is when 75% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 3 or fewer NACB).
- Development of immature bolls will be inhibited.

## Restrictions

- Do not apply more than 10.7 fl oz/A of this product in a single application.
- Do not make more than 4 applications per year.

Cotton[*] Stripper or Spindle	Broadcast	2.1 to 7.5 fl oz	Ground: 10.0 gal	3
Harvested			Air: 5.0 gal	
Harvest aid for defoliation and				
boll opening				

- BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS.
- Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature.
- This product may be applied alone or tank mixed with the following cotton harvest aids: Def Defoliant®, Folex Defoliant®, ethephon.
- May be applied as a split application.
- To avoid leaf sticking, apply this product as a desiccant approximately 3 to 7 days after defoliant or a conditioning application and 7 to 14 days before harvest.
- South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary.

#### **Precautions**

- DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED. SLICE BOLLS AND INSPECT THE SEED FORMATURITY.
- Cooler temperatures may cause a longer waiting period between application of this product as a desiccant and defoliation/conditioner.

## Restrictions

- Do not apply more than 7.5 fl oz/A of this product in a single application.
- Do not make more than 4 applications per year.
- Do not exceed a total of 1.3 pints per acre.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
COTTON[*]	Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal	3
Late season desiccation			Air: 5.0 gal	

- BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS.
- May be applied as a split application.
- Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB).
- Delay desiccation application of this product approximately 3 to 7 days to minimize leaf sticking if a defoliation or conditioning application has been made.
- May be tank mixed with other harvest aid materials known to the local expert to be effective.

## Precautions

- Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity.
- South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 4 applications per year.
- Do not exceed a total of 1.3 pints per acre.

[\*][Not For Use in [California] [New York]]

COTTON[*]	Broadcast	0.75 to 1.25 pts	Ground: 10.0 gal	3
Desiccation of regrowth			Air: 5.0 gal	

#### Directions

- Use to desiccate regrowth occurring after defoliation or desiccation.
- Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary.
- If regrowth is excessive, use higher specified rate.

#### **Precautions**

Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete.

## Restrictions

- Do not apply more than 1.25 pt/A of this product in a single application.
- Do not make more than 4 applications per year.

[\*][Not For Use in [California] [New York]]

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EASTER LILIES[*]	Preemergence	1.7 to 2.7 pts	Ground: 10 gal	-	
(Field grown)					

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 5.4 pt/A of this product per year.
- Do not exceed 2 applications per year.
- Minimum Application Interval: 7 days

FALLOW LAND[*]	Preplant	1.0 to 2.7 pts	Ground: 10.0 gal	-
Prior to planting of any crops.	Broadcast to		Air: 5.0 gal	
	Fallow Land			

- Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for the suppression of perennial weeds or sedges.
- For weeds approaching the maximum size of 6 inches, the higher specified rate may be used.
- Prior to application allow maximum weed emergence to maximize the benefit of this use.
- Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.

#### **Precautions**

• Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes.

# Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 2 applications per year, during the fallow period.

\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
GRASSES[*]	Preplant, at	1.3 to 2.7 pts	Ground: 10.0 gal	-
(For seed) (For use in seedbed	Planting, or			
preparation)	Preemergence			

#### Directions

- Prepare the seedbeds and allow weeds to germinate.
- Apply this product when weeds are at the 3 to 5 leaf stage.
- Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 5.4 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 14 days
- Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.

#### [\*][Not For Use in [California] [New York]]

GUAR[*]	Preharvest	1.3 pts	Ground: 10.0 gal	4
(Preharvest desiccation)				

## Directions

Apply after the pods are fully mature.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Do not graze treated areas or use the treated forage for animal feed.

GUAVA[*] Di	rirected Spray	2.5 pts	Ground: 10. gal	-
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#### Precautions

 Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.

#### Restrictions

- Do not apply more than 10 pt/A per year of this product.
- Do not apply more than 2.5 pt/A of this product in a single application.
- Do not make more than 4 applications per year.
- Minimum Application Interval: 7 days
- Do not allow spray to contact green stems, fruit or foliage.
- Do not graze treated areas.
- Do not feed cover crops grown in treated areas to livestock.

## [\*][Not For Use in [California] [New York]]

HOPS	Directed Spray	1.3 pts	Ground: 10 gal	14
(ID, OR, & WA only)	and/ or Suckering			
	and Stripping.			

#### Directions

- Silage and hop vine refuse may be fed to livestock.
- Spray only the basal 2.0 feet of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per year.
- Chemical Pruning: Spray when vines are less than 3.0 feet tall to burn back existing vines and obtain even emergence of subsequent vines.

#### **Precautions**

- Retreatment of spot treatment may be necessary.
- APPLICATION TO HOP VINES LESS THAN 6 FEET TALL MAY CAUSE UNACCEPTABLE INJURY.
- Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using this product on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result.
- Do not allow animals to graze in treated hop yards.

Сгор	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
LENTILS[*]	Harvest Aid	0.8 to 1.3 pts	Ground: 20.0 gal Air: 5.0 gal	7

- Add nonionic surfactant at 0.25% v/v (2.0 pints per 100 gallons) of the finished spray volume.
- May also be applied as a split application.
- Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 2 applications per year.
- DO NOT make more than 2 applications or exceed a total of 1.3 pints per acre. The split application may improve coverage.
- Minimum Application Interval: 7 days
- DO NOT apply where weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

## [\*][Not For Use in [California] [New York]]

MINT[*]	Dormant Season	1.3 to 2.0 pts	Ground: 10.0 gal	-
(Peppermint, Spearmint)			Air: 5.0 gal	

#### Directions

- Apply when crop is dormant before spring growth begins and when weeds are less than 6 inches tall.
- May be tank mixed with Sinbar® Herbicide (terbacil, 61842-13) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per year.

#### **Precautions**

• For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce.

#### Restrictions

- Do not make more than 2 applications per year.
- Do not apply more than 2.0 pt/A per dormant season.
- Do not apply more than 2.0 pt/A of this product in a single application.
- Minimum Application Interval: 7 days

## [\*][Not For Use in [California] [New York]]

ONIONS[*] (seeded) AND	Preplant/	1.7 to 2.7 pts	Ground: 10 gal	60
GARLIC[*]	Preemergence			[200 (CA only)]

## Directions

- For heavy weed infestations or wild oat control use the higher specified rate.
- Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 1 application per year.
- Apply only one application per year at the 2.7 pints per acredosage.

PASSION FRUIT[*] Directed Spray 2.5 pt Ground: 10.0 gal -	Ground: 10.0 gal -	2.5 pt	Directed Spray	PASSION FRUIT[*]
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- If bark is still green at application time, use a shield or wrap vine.
- Pick all fruit off the ground prior to application if application is to be made during harvest season.

#### **Precautions**

• It may be necessary to retreat or spot treat.

#### Restrictions

- Do not apply more than 2.5 pt/A of this product in a single application.
- Do not apply more than 10 pt/A of this product per year.
- Do not make more than 4 applications per year.
- Minimum Application Interval: 28 days
- Do not allow animals to graze on treated areas.

## \*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
PEANUTS[*]	Broadcast	5.4 to 10.8 fl oz	Ground: 10 gal	-
	At ground crack			
	Post-emergence			

#### Directions

- To control or suppress small (1 to 6 inches) emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack.
- For at ground crack use, this product can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control.

#### **Precautions**

• Crop, foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally.

#### Restrictions

- Do not apply more than 10.8 fl oz/A of this product in a single application.
- Do not make more than 2 applications per year.
- Make no more than 2 applications per year and do not apply total of more than 10.8 fluid ounce of product per acre per year.
- Minimum Application Interval: 7 days
- Do not apply by air.

PEANUTS[*]	Broadcast	5.4 to 10.8 fl oz	Ground: 10.0 gal	-
Basagran® Herbicide Tank Mix	At ground crack			
	Post-emergence			

- Tank mix this product with Basagran at 1.0 pint per acre for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida.
- This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack.

#### **Precautions**

- Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally.
- If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged.
- During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result.

#### Restrictions

- Do not apply more than 10.8 fl oz/A of this product in a single application.
- Do not make more than 2 applications per year.
- Do not apply a total of more than 10.8 fluid ounce of product per acre per year.
- Minimum Application Interval: 7 days
- Do not apply by air.

[\*][Not For Use in [California] [New York]]

PEANUTS[*]	Broadcast	5.4 to 10.8 fl oz	Ground 10.0 gal	-
Butyrac® Herbicide or	Post-emergence			
Butoxone® 200 Herbicide				
Tank Mix				

#### Directions

• For improved control of weeds such as cocklebur, sicklepod, and morningglory, tank mix this product with 8.0 to 16.0 ounce (0.125 to 0.25 pound) per acre of Butyrac or Butoxone 200.

#### **Precautions**

• Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally.

#### Restrictions

- Do not apply more than 10.8 fl oz/A of this product in a single application.
- Do not make more than 2 applications per year.
- Do not apply a total of more than 10.8 fluid ounce of product per year.
- Minimum Application Interval: 7 days
- Do not apply by air.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pt	Ground: 10.0 gal	60

Cannery waste can be fed to livestock.

#### **Precautions**

• Avoid contact with pigeon pea foliage.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 1.3 pt/A of this product per year.
- Do not make more than 1 application per year.
- Do not graze treated areas or feed treated forage to livestock

PINEAPPLE[*]	Directed Spray	1.3 to 2.7 pts	Ground: 10.0 gal	20

## **Precautions**

• More mature weeds may require retreatment.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not exceed 3 applications per year.
- Minimum Application Interval: 7 days

## [\*][Not For Use in [California] [New York]]

POTATO[*]	Preplant or	0.7 to 1.3 pts	Ground: 10.0 gal	0
	Preemergence		Air: 5.0 gal	
	Broadcast			

#### Directions

Apply up to ground cracking stage, before potatoes have emerged.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Minimum Application Interval: 7 days
- Do not make more than 3 applications per year.

## [\*][Not For Use in [California] [New York]]

POTATO[*]	Preplant	0.4 to 0.7 pts	Ground: 10.0 gal	-
(California, Washington, Oregon,	Broadcast		Air: 5.0 gal	
ldaho only; used alone)				

#### Directions

• For control of volunteer barley in preformed seedbeds.

#### Restrictions

• Do not make more than 3 applications per year.

РОТАТО	Broadcast	0.7 to 1.3 pts	Ground: 20.0 gal	3
Fresh Market Only				
Preharvest vine killing and weed				
desiccation.				
For Use Only in the states of:				
Colorado, Delaware, Idaho,				
Illinois, Indiana, Kansas, Maine,				
Maryland, Massachusetts,				
Michigan, Minnesota, Nebraska,				
Nevada, New Jersey, New York,				
North Dakota, Ohio, Oregon,				
Pennsylvania, South Dakota,				
Utah, Washington, Wisconsin,				
and Wyoming				

- Potatoes must be harvested promptly after desiccation and processed or consumed immediately.
- Begin application when leaves begin to turn yellow.
- Use 1.3 pints per acre rate where quick vine kill is desired.
- For dense vine growth, use 2 applications of 0.6 pints per acre. Split applications must be applied a minimum of 5 days apart.

#### **Precautions**

• Immature potato foliage is tolerant to this product. However, desiccation will not be complete under this condition.

#### Restrictions

- For Fresh Market Potatoes Only. (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.)
- DO NOT make more than 2 applications per year.
- DO NOT use on potatoes that will be stored as tuber decomposition may result.
- DO NOT apply to drought stressed potato vines.
- DO NOT use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally
- DO NOT pasture livestock in treated potato fields.
- DO NOT exceed 2.6 pints per acre per year.

RICE[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 10.0 gal	-
	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
	Broadcast	Weeds 6": 2.0 to 2.7 pts		

#### Directions

- Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher specified rates and spray volumes.
- Seeding should be done with a minimum amount of soil disturbance.
- This product may be tank mixed with other herbicides registered for this use for improved or extended weed control.

## Precautions

• This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or
  wet weather delays speed of kill, do not flood/flush until complete kill is evident.

SAFFLOWER[*]	Preplant or	1.7 to 2.7 pts	Ground: 10.0 gal	0
	Preemergence		Air: 5.0 gal	
	Broadcast or Banded			
	Over Row			

• Apply before, during and after planting but before crop emergence.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

## [\*][Not For Use in [California] [New York]]

SAFFLOWER[*]	Preplant	0.7 pt	Ground: 10.0 gal	0
(California only)	Broadcast		Air: 5.0 gal	

#### Directions

• For control of volunteer barley in preformed seedbeds.

## Restrictions

- Do not apply more than 0.7 pt/A of this product in a single application.
- Do not apply more than 2.1 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- [\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
SMALL GRAINS[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
(Barley, wheat)	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
		Weeds 6": 2.0 to 2.7 pts		

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

## [\*][Not For Use in [California] [New York]]

SMALL GRAINS[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 10.0 gal	-
(Wheat Only)	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
Hoelon® 3EC Tank Mix		Weeds 6": 2.0 to 2.7 pts		

#### Directions

- A tank mix with Hoelon 3EC will improve grass control.
- Apply when weeds are actively growing and 1 to 6 inches in height. Weeds 6 inches or taller may not be controlled.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not apply this tank mix to barley as crop injury may result.

#### [\*][Not For Use in [California] [New York]]

SORGHUM[*]	Preplant/	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	48 (grain)
(Grain)	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	20 (forage)
	Broadcast or Band	Weeds 6": 2.0 to 2.7 pts		

## Directions

- To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible.
- Seeding should be done with a minimum amount of soil disturbance.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

## [\*][Not For Use in [California] [New York]]

[Not for ose in [Camornia] [New York]]					
SORGHUM[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts		48 (grain)	
(Grain)	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts		20 (forage)	
Atrazine & 2,4-D ester		Weeds 6": 2.0 to 2.7 pts			
[Low Volatile] Tank Mix					

#### Directions

This product may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

SORGHUM[*]	Preplant	1.3 to 2.5 pts	Ground: 10.0 gal	48 (grain)
(Grain)				20 (forage)
Harmony® Extra				
Herbicide Tank Mix				

For Improved weed control, this product may be tank mixed with Harmony Extra.

#### Restrictions

- Do not apply more than 2.5 pt/A of this product in a single application.
- Do not make more than 3 applications per year.

[\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
(Grain)	Postemergence Directed (including Hooded or Shielded	0.7 to 1.3 pts	Ground: 10.0 gal	48 (grain) 20 (forage)

#### Directions

- Apply when weeds are actively growing.
- Use higher specified rate on larger or hard-to-control weeds. Weeds 6 inches or taller may not be controlled.

#### Precautions

• Severe damage and/or complete kill can occur if spray contacts sorghum plants.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Do not exceed 2 postemergence directed applications or exceed a total of 5.3 pints of this product per year.

## DIRECTIONS FOR USE HOODED OR SHIELDED SPRAYERS

- To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height.
- Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants.

## DIRECTIONS FOR USE DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS

- Apply when sorghum is at least 12 inches tall when naturally standing.
- Use precision directed-spray application equipment adjusted so that no more than the lower 3 inches of the sorghum stalk is contacted by the application spray.

#### **Precautions**

• Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.

#### Restrictions

• Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift.

SOYBEANS[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	Air: 5.0 gal	
		Weeds 6": 2.0 to 2.7 pts		

- Apply as a broadcast spray before, during or after planting, but before crop emergence.
- This product can be tank mixed with the following herbicides for improved burndown or residual control: 2,4-DB; Canopy; Dual MAGNUM; Goal; Harmony Extra (Preplant only); Linex; chlorimuron + linuron; Stealth; Pursuit Herbicide (imazethapyr, 241-310); Scepter Herbicide (imazaquin, 5481-597).
- The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. When weed canopy is dense or under dry conditions, use the highest specified rate of this product.
- The lower application rate may be used when weeds are less than 4 inches tall and a selective postemergence spray or cultivation will be made within 3 weeks after planting.
- Seeding should be done with a minimum amount of soil disturbance.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not exceed a total of 4.0 pints of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).

\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
SOYBEANS[*]	Preplant or	Weeds 1 to 3": 1.3 to 1.7 pts	Ground: 5.0 gal	-
2,4-D ester (Low Volatile) Tank	Preemergence	Weeds 3 to 6": 1.7 to 2.0 pts	[10.0 gal (CA only)]	
Mix		Weeds 6": 2.0 to 2.7 pts	Air: 5.0 gal	

#### Directions

- Apply 2,4-D ester (Low Volatile) at 0.35 to 0.475 pounds active ingredient per acre at least 7 days prior to planting.
- Apply 2,4-D ester (Low Volatile) at 0.475 to 0.95 pounds active ingredient per acre at least 30 days prior to planting.
- May be tank mixed with residual herbicides listed above.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not exceed a total of 4.0 pints of this product peryear.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield.
- Do not use amine formulation.

SOYBEANS[*]	Postemergence	3.0 to 5.3 fl oz	Ground: 10 gal	-
	Directed Spray			
	(includes Hooded			
	or Shielded)			

- Apply when weeds are actively growing.
- Use the lower rate of this product for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2 inches tall.
- For control of 2 to 4 inch red rice, Brachiaria, barnyardgrass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of this product.
- Use 5.3 fluid ounces of this product for control of 2 to 3 inch sicklepod, purslane, pigweed, cut leaf ground cherry, and common ragweed.
- Apply this product at 5.3 fluid ounce per acre plus 0.2 pounds active ingredient per acre of a 2,4-D formulation for control of 2 to 4 inch grasses in mixture with common cocklebur, morningglory, and red rice.
- If necessary, make a second and final application 7 to 14 days later.

#### Restrictions

- Do not apply more than 5.3 fl oz/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 14 days
- Do not graze or harvest for forage or hay.

#### DIRECTIONS FOR HOODED OR SHIELDED SPRAYERS

- Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants.
- Use higher specified rate on larger (less than 6 inches) or hard-to-control weeds. Weeds 6 inches or taller may not be controlled.

#### **Precautions**

• Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants.

## DIRECTIONS FOR USE DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS

## Directions

• Use precision directed spray application equipment adjusted so that no more than the lower 3 inches of the soybean plant is contacted by the application spray.

### Precautions

• Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions. Restrictions

## • Do not treat soybeans that are less than 8 inches tall.

Do not exceed 30 psi nozzle pressure or spray, under conditions which may cause excessive drift.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
SOYBEANS[*]	Harvest Aid	5.4 to 10.7 fl oz	Ground: 20.0 gal Air: 5.0 gal	-

- Always use the higher specified rate when treating cocklebur.
- Indeterminate varieties: Make applications when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing.

#### **Precautions**

- Mature cocklebur, especially drought-stressed plants are tolerant to this product and desiccation will not be complete.
- Injury will occur on immature soybeans.

#### Restrictions

- Do not apply more than 10.7 fl oz/A of this product in a single application.
- Do not apply more than 0.7 pt/A of this product per year.
- Do not make more than 1 application per year.
- Minimum Application Interval: 14 days
- Do not apply within 15 days of harvest.
- Do not graze or harvest for forage or hay.

## [\*][Not For Use in [California] [New York]]

STRAWBERRIES[*]	Postemergence	1.3 pt	Ground: 20.0 gal	21
	Directed Spray			

## Directions

Direct spray between the rows, using shields to prevent spray contact with crop plants.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 3.9 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not allow spray to contact strawberry plants as injury or excessive residues may result.
- Do not apply more than 3 times per year.
- Do not graze livestock in treated areas.

#### [\*][Not For Use in [California] [New York]]

SUGAR BEETS[*]	Preplant or	1.3 to 2.7 pts	Ground: 10.0 gal	-
	Preemergence		Air: 5.0 gal	

## Directions

- For heavier weed infestations, use the higher specified label rate.
- Seeding or transplanting should be done with a minimum amount of soil disturbance.
- Can be used in fallow bed/stale seedbed for weed control.
- Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

#### **Precautions**

Crop plants emerged at time of application will be killed.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

SUGARCANE[*]	Postemergence	-	-	-	
	Directed Spray				
	(includes Hooded				
	or Shielded)				

- Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction.
- If necessary, a second and final application can be made when new weed growth is 2 to 6 inches high.

#### Restrictions

- Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year.
- Do not graze treated areas or feed treated forage to livestock.

\*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
SUGARCANE Florida	-	1.3 pt	Ground: 50.0 gal	-

#### Directions

Optimum results can be obtained by applying in early spring (March to April) when weeds are small.

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not apply after June 1 as cane growth may be stunted and yields reduced.

		•		
SUGARCANE	-	1.3 pt	Ground: 20.0 gal	-
Hawaii				

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not apply after cane rows have closed in.

SUGARCANE	-	0.7 to 2.0 pts	Ground: 20.0 gal	30
Louisiana				

## Directions

- For tiller control, apply when tillers are less than 18 incheshigh.
- For heavier weed infestations or tiller growth use the higher specified rate.

#### Restrictions

- Do not apply more than 2.0 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days

SUGARCANE	Harvest Aid	0.4 to 0.7 pts	Air: 5.0 gal	3
Florida & Texas				

## Directions

- Under cool, cloudy weather conditions use higher specified rate.
- Apply 3 to 14 days before burning and harvest.

#### Restrictions

- Do not apply more than 0.7 pt/A of this product in a single application.
- Do not apply more than 0.7 pt/A of this product per year.
- Do not make more than 1 application per year.

SUNFLOWER[*]	Preplant or	1.7 to 2.7 pts	Ground: 10.0 gals	-
	Preemergence		Air: 5.0 gal	
	Broadcast or			
	Banded Over Row			

• Apply before, during, or after planting but before crop emergence.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

[\*][Not For Use in [California] [New York]]

SUNFLOWER[*]	Preharvest	0.8 to 1.3 pts	Ground: 10.0 gals	7
	Desiccation		Air: 5.0 gal	
	Broadcast			

## Directions

- Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are, yellow and the bracts are turning brown.
- When crop stands or weed infestations are heavy, use the higher label rate.

## Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 2.7 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not graze treated areas or feed treated forage to livestock.

Crop	Application Timing	Rate pt/A	Use Directions
TANIER[*]	Preemergence	1.3 to 2.7	Florida Only  Make a preemergence application as a
	Postemergence (Directed Spray)  If both preemergence and postemergence applications are made, allow 30-60 days between applications.	1.3	broadcast or banded over row application. A preemergence application must be made before crop emergence.  Make a postemergence directed spray application with ground equipment that can direct the spray between the rows and shield to prevent spray contact with crop plants.  Apply in a minimum ground application of 20 gal/A spray volume.  See USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE for adjuvant recommendations.
	Postemergence (Spray Directed)	1.3	Puerto Rico ONLY:  Apply as a shielded postemergence directed spray ground application in a minimum of 50 gal/A using equipment that can direct the spray between rows and shield to prevent spray contact with crop plants.  Apply when weeds are succulent, and growth is 1-6".  See USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE for adjuvant recommendations.

## Precaution:

Do not allow the spray to contact the tanier plants as injury may result.

## Restrictions

- Puerto Rico: Do not apply more than 1.3 pt/A of this product in a single application.
- Florida: Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Reentry Interval (REI): 24 hours
- Minimum Application Interval:
  - o Florida: 30 days
  - o Puerto Rico: 90 days
- **DO NOT** make more than 2 applications per year in Florida. If 2 applications are made, only 1 preemergence and one postemergence directed spray are allowed.

[\*Not for Use in California]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
TARO, DRYLAND	Postemergence	1.3 to 2.1 pts	Ground: 10.0 gal	180
(Hawaii Only)	Directed Spray			

- Make the first application when weed growth is 1 to 4 inches high.
- Weeds emerging after the application will not be controlled.
- A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.

#### Restrictions

- Do not apply more than 2.1 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Minimum Application Interval: 7 days
- Do not allow spray to contact the taro plants as injury may result.

TREE PLANTATION	Preplant	1.3 to 2.7 pts	Ground: 20.0 gal	-
ESTABLISHMENT[*]	Broadcast			
Deciduous and Conifers				

#### Directions

- To allow maxim emergence of weeds prepare ground early.
- Apply prior to planting. Plant with minimal soil disturbance.
- For heavier weed infestations, use the higher application rate.
- For improved burndown or residual control, tank mix this product with other herbicides labeled for this use.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product in a single application
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not apply in less than 20.0 gallons per acre as weed control will be reduced.

TDEEC AND \/INIEC[*]	Dina stad Cana	1 7 4 2 7 10 4 2	Cnaumal, 10.0 cml	Amrianta, 20
	Directed Spray	1.7 to 2.7 pts	Ground: 10.0 gal	Apricots: 28
Orchards[*], Vineyards[*],				Cherries: 28
Windbreak[*], Shade &				Figs: 13
Ornamental Trees[*]:				Kiwi Fruit: 14
Acerola[*], Apples[*],				Nectarines: 28
Apricots[*], Avocados[*],				Olives: 13
Bananas[*], Beechnut[*], Brazil				Peaches: 14
nut[*], Butternut[*],				Pistachios: 7
Calamondin[*], Cashew[*],				Plums: 28
Cherries[*], Chestnut[*],				
Chinquapin[*], Citrus[*],				
Citron[*], Coffee[*], Figs[*],				
Filberts[*], Grapefruit[*],				
Grapes[*], Hickory nut[*], Kiwi				
fruit[*], Kumquat[*], Lemon[*],				
Lime[*], Macadamia nuts[*],				
Mandarin[*], Nectarines[*],				
Olives[*], Orange (sour & sweet)				
[*], Papayas[*], Peaches[*],				
Pears[*], Pistachios[*], Plums[*]				
Prunes[*], Pummelo[*],				
Satsuma mandarin[*],				
Walnuts[*], and Other shade				
and ornamental trees including				
arborvitae[*], ash[*], elm[*],				
fir[*], oak[*], pine[*], etc.				
[ 1, 1 m. [ 1, p [ 1, ]				

- Use the shield or wrap plant when spraying around young trees or vines.
- For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary.

#### Restrictions

- Do not make more than 5 applications per year, except for the following:
- Do not make more than 3 applications per year on Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, and Plums.
- Do not make more than 4 applications per year on Olives.
- Do not make more than 5 applications on Pistachios prior to shell split; after shells split, do not make more than 2 applications per year.
- Do not allow spray to make contact with green stems (except suckers), fruit or foliage.
- Do not graze treated areas.
- Do not feed covered crops grown in treated areas to livestock.
- Do not apply when figs, nuts or olives to be harvested are on the ground.
- For apricots Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per year.
- For cherries Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per year.
- For figs Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per year.
- For grapes Treat when sucker growth is no more than 8 inches long. Make late season applications to weeds to avoid contact with desirable foliage.
- For kiwi fruit Do not treat more than 3 times per year.
- For nectarines Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per year.
- For olives Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications
  per year.
- For peaches -Do not harvest within 14 days after application and do not exceed 3 postemergence directed applications per year.
- For pistachios Do not exceed 2 applications after shells split.
- For plums Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per year.

## \*][Not For Use in [California] [New York]]

TREES AND VINES[*]	Directed Spray	1.7 to 2.7 pts	Ground: 10.0 gal	
Tank Mixes				

#### Directions

- This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control.
- This product may be tank mixed with the following herbicides:
   Devrinol® Herbicide (napropamide, 70506-34); Goal®; diuron; diuron + bromacil; Princep®; Sinbar®; norflurazon

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 5 applications per year, except for the following:
- Do not make more than 3 applications per year on Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, and Plums.
- Do not make more than 4 applications per year on Olives.
- Do not make more than 5 applications on Pistachios prior to shell split; after shells split, do not make more than 2 applications per year.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
TYFON	Preplant	1.7 to 2.7 pts	Ground: 10.0 gal	-
(New Hampshire only)	Preemergence			

• Seeding should be done with a minimum of soil disturbance.

#### **Precautions**

- Weeds and grasses emerging after treatment will not be controlled.
- Crop plants emerged at time of application will be injured.

## Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

VEGETABLES[*]	Preplant	1.3 to 2.7 pts	Ground: 10.0 gal	-
(Seeded or Transplanted) Beans	Preemergence		Air: 5.0 gal	
(Lima, Snap) [*], Broccoli[*],				
Cabbage[*], Cantaloupe[*],				
Carrots[*] Cauliflower[*],				
Chayote fruit[*], Chinese				
cabbage[*], Chinese				
waxgourd[*]. Citron melon[*],				
Collards[*], Cucumber[*],				
Eggplant[*], Gherkin[*],				
Gourd[*], Edible				
Groundcherry[*], Lettuce[*],				
Momordica spp. [*], Musk				
melons[*]. Peas[*], Pepino[*],				
Peppers[*], Pumpkin[*],				
Squash[*], Sweet Corn[*],				
Tomatillo[*], Turnips[*],				
Tomatoes[*], Watermelons[*]				

## Directions

- Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.
- Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence.
- For heavier weed infestations, use the higher specified rate.
- Seeding or transplanting should be done with a minimum amount of soil disturbance.
- This product can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®.

#### Precaution

Crop plants emerged at time of application will be killed.

### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
VEGETABLES[*] Eggplant[*], Peppers[*], and Tomatoes[*]	Directed Spray	1.3 pt	Ground: 10.0 gal	-

- For control or suppression of emerged weeds between rows after crop establishment.
- Use precision directed spray application equipment adjusted to prevent spray contact with crop plants.
- Apply when weeds are succulent and weed growth is less than 6 inches.

#### Restrictions

- Do not apply more than 3.9 pt/A per year of this product.
- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 14 days
- Do not exceed 30 psi nozzle pressure.
- Do not spray under conditions which may cause excessive drift.
- Do not allow animals to graze in treated areas.
- Do not harvest tomatoes within 30 days after application.

## [\*][Not For Use in [California] [New York]]

VEGETABLES[*]	After Final	1.6 to 2.5 pts	Ground: 40.0 to 120	-
Tomatoes[*]	Harvest		gal	

#### Directions

- Apply in 40.0 to 120 gallons of water per acre (0.62 to 0.93 pound active ingredient per acre).
- Add NIS containing 75% or more surface active agent at 0.125 v/v (1.0 pint per 100 gallons of spray solution).
- To ensure maximum herbicide burndown, tomato vines should be thoroughly covered.
- To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently.

#### **Precautions**

This product may be deactivated and less efficacious when dirty or muddy water is used.

## Restrictions

- Do not apply more than 2.5 pt/A of this product in a single application.
- Do not apply more than 8.0 pt/A of this product per year.
- Do not make more than 2 applications per year.
- Do not apply more than a total of 3.0 pounds active ingredient (paraquat) per acre per year.
- Minimum Application Interval: 7 days
- To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).

## [\*][Not For Use in [California] [New York]]

VEGETABLES	Broadcast	0.4 to 0.7 pts	Ground:10.0 gal	-
(California, Washington, Oregon			Air: 5.0 gal	
Idaho only)				
Lettuce,				
Melon,				
Sugar Beets,				
Tomatoes				

## Directions

• For control of volunteer barley in preformed seedbeds.

## Restrictions

- Do not apply more than 0.7 pt/A of this product in a single application.
- Do not make more than 2 applications per year.
- Do not harvest tomatoes within 30 days after application.

VEGETABLES[*]	Dormant	1.7 to 2.7 pts	Ground: 10.0 gal	-
Rhubarb[*]				

• Apply during dormant season before buds in crown begin to grow.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 5.4 pt/A of this product per year.
- Do not exceed 2 applications per year.
- Minimum Application Interval: 7 days

[\*][Not For Use in [California] [New York]]

#### **RESIN SOAKING**

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of this product is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan this product treatments in stagnated or commercial timber stands, no sooner than three years after commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted product to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw chipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1 to 2 feet from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7 to 5.0 ml) of this product solution (1 to 5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3.0 ml of 2 or 4% of this product solution will cover the 1-inch wide streak and will result in application of 60.0 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of this product and tree harvest. However, it is preferable that the interval be from 12 to 24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during the time between treatment and tree harvest.

Dilution Table for this pr	Dilution Table for this product (3.0 lbs. cation per gallon)				
Concentration of Cation on Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of this product				
0.2%	118.8				
0.5%	46.8				
1.0%	22.9				
2.0%	10.9				
3.0%	6.9				
4.0%	4.9				
5.0%	3.7				

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVATION COMPLIANCE PROGRAMS[*] (For use in compliance with the Federal Conservation Reserve Program or Federal set-aside programs)	Broadcast	1.7 to 2.7 pts	Ground: 10.0 gal Air: 5.0 gal	-

• This product may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 5.3 pt/A of this product per year
- Do not make more than 3 applications per year.
- Minimum Application interval: 7 days

## \*][Not For Use in [California] [New York]]

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
NONCROP USES[*]	Broadcast or Spot	1.7 to 2.7 pts	Ground: 10.0 gal	-
	Treatment			

#### Directions

- Repeat applications as necessary but do not make more than 10 applications per year.
- To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines.

#### Restrictions

- Do not apply more than 2.7 pt/A of this product in a single application.
- Do not apply more than 27.0 pt/A of this product per year.
- Do not make more than 10 applications per year.
- Minimum Application interval: 7 days
- Do not allow spray contact with the foliage of ornamentals or desired plants.

PASTURE RESEEDING[*]	Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal	See specific
For suppression of existing			Air: 5.0 gal	geographic directions
sod and undesirable				
emerged broadleaf weeds				
and grasses prior to or at				
time of planting grasses or				
forage legumes				

#### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not apply more than 4.0 pt/A of this product per year.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days

#### Directions West of Cascade and Sierra Nevada Mountains

- Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth.
- Apply on moderately to heavily grazed areas for best seeding results.

## Restrictions West of Cascade and Sierra Nevada Mountains

• Do not use in heavy sod and weed growth areas.

#### **Directions East of Rocky Mountains**

- Use the 1.3 pints rate on vigorous or coarse sod species such as bromegrass.
- Apply prior to, or at time of seeding grasses or forage legumes.
- Apply only to grazed or mowed pastures not more than 3 inches in height at time of treatment.

## Directions Bermudagrass or Bahiagrass Sods

- Apply in late summer or early fall to sod not exceeding 3 inches in height.
- For control of emerged little barley, apply in February or March before the mid-boot stage of little barley.

#### Directions Bermudagrass and Coastal Bermudagrass Pastures

- Apply when bermudagrass is dormant.
- For control of little barley, apply before the mid-boot stage.

## Restrictions Bermudagrass and Coastal Bermudagrass Pastures

• Do not mow for hay until 40 days after treatment.

## [\*][Not For Use in [California] [New York]]

For control of endophyte-	Broadcast	0.7 to 1.3 pts	Ground: 10.0 gal	-
fungus-infected fescue	(Split Application)	followed by		
forage legume/grass mixture		0.7 to 1.3 pts		
and other grass pastures.[*]				

## Directions

- Use split applications of 10 to 21 days apart if necessary.
- For spring plantings, the initial application of 0.7 to 1.3 pints may be made the previousfall.
- Apply when fescue is actively growing and no more than 4 inches high.

### Restrictions

- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 2 applications per year.
- Do not exceed 2.6 pints per acre total in preparation for reseeding.
- Retreatment Interval: 10 days
- To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	This Product Rate/Acre	Minimum Total Spray/Acre	Grazing or Preharvest Interval (Days)
*For prickly pear desiccation in pastures. $[1]$	Spot Sprays	0.8 fl oz per gallon of water	Spray to wet weed foliage.	-

- Mix 0.8 fluid ounce of this product and 0.33 fluid ounce of a nonionic surfactant per gallon of water.
- Completely and uniformly cover all green prickly pear foliage with spray.
- Apply in May through September for best desiccation results.
- Apply only to pastures with no more than 3 inches of height at time of treatment.
- Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1.0 to 2.0 fluid ounce per gallon of water for improved desiccation and perennial control of prickly pear.

#### Restrictions

- Do not apply more than 0.8 fl oz/A of this product in a single application.
- Do not make more than 10 applications per year.
- Do not use more than 1.6 pints of this product per acre peryear.

## [1][Not For Use in [California] [New York]]

[ ][	[ ][ ··································				
*For Juniper Species leaf	Broadcast	1.3 pts	Air: 5.0 gal	-	
moisture reduction or					
desiccation prior to					
prescribed burning of					
pastures.[1]					

#### Directions

- Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists.
- Apply during hot, dry weather conditions (generally July and August).
- Use 2% v/v nonionic surfactant in a minimum of 5.0 gallons spray solution.
- Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3 to 4 weeks after this product application.

#### **Precautions**

- Significant soil moisture and/or, wet weather conditions prior to or after application will decrease the potential for juniper crown burns.
- Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.

#### Restrictions

- Do not apply more than 4 pt/A per year of this product.
- Do not apply more than 1.3 pt/A of this product in a single application.
- Do not make more than 3 applications per year.
- Minimum Application Interval: 7 days
- Do not graze livestock after application or prior to burning.

## [1][Not For Use in [California] [New York]]

*Native Pastures[1]	Broadcast	1.0 to 1.2 pts	Ground: 10.0 gal	-
			Air: 5.0 gal	

## Directions

- Apply this product for control of downy and Japanese brome.
- Apply in spring after 90% node formation of brome species, but before full bloom.
- Apply only to pastures with no more than 3 inches of height at time of treatment.

## Precautions

• Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season.

#### Restrictions

- Do not apply more than 1.2 pt/A of this product in a single application.
- Do not make more than 2 applications per year.
- Do not apply more than 1.2 pints of this product per year.

Conversion Table This Product to Be Applied				
Fluid Ounces	Pints	Pounds Active Ingredient	Acres Per Gallon	
2.5	0.16	0.06	51.3	
4.8	0.30	0.11	26.7	
5.28	0.33	0.12	24.2	
5.52	0.35	0.13	23.2	
10.00	0.63	0.23	12.8	
11.00	0.69	0.26	11.6	
11.20	0.70	0.26	11.4	
12.00	0.75	0.28	10.7	
16.00	1.00	0.38	8.0	
20.00	1.25	0.47	6.4	
20.80	1.30	0.49	6.2	
24.00	1.50	0.56	5.3	
28.00	1.75	0.66	4.6	
32.00	2.00	0.75	4.0	
40.00	2.50	0.94	3.2	
43.20	2.70	1.00	3.0	

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

**Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or by incineration. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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## RESTRICTED USE PESTICIDE

Due to acute toxicity. For retail sale to and use only by certified applicators – **NOT** to be used by uncertified persons working under the supervision of a certified applicator.

# {LANGUAGE ON LABEL AFFIXED TO CONTAINER} A364.01 [TM]

[Alternate Brand Name: Purgatory, Purgatory 3 SL]

Active Ingredient:	(% by weight)
Paraquat dichloride:	
1,1'-dimethyl-4,4'-bipyridinium dichloride:	43.2%
Other Ingredients	56.8%
Total	100.0%
Contains 3.0 pounds paraguat cation per gallon as 4.05 pound	ds of paraguat

dichloride salt per gallon. Contains emetic and stench (odor).

# KEEP OUT OF REACH OF CHILDREN DANGER/PELIGRO



## **POISON/VENENO**

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.)

READ ENTIRE LABEL PRIOR TO USING THIS PRODUCT. IN THE CASE OF AN ACCIDENT, SEEK MEDICAL ATTENTION. SYMPTOMS ARE PROLONGED, PAINFUL, AND CAN BE FATAL.

LEA LA ETIQUETA COMPLETA ANTES DE USAR ESTE PRODUCTO. EN CASO DE ACCIDENTE, BUSQUE ATENCIÓN MÉDICA INMEDIATA. LOS SÍNTOMAS SON PROLONGADOS, DOLOROSOS, Y PUEDEN SERMORTALES

- IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
   SYMPTOMS ARE PROLONGED AND PAINFUL.
- CORROSIVE TO SKIN AND EYES. / CORROSIVO PARA LA PIEL Y LOS OJOS.
- NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES. / NUNCA TRANSFEIERA ESTE PRODUCTO A RECIPIENTES PARA COMIDA O DE BEBIDAS O RECIPIENTES NO EXPLÍCITAMENTE PREVISTOS PARA PLAGUICIDAS.
- DO NOT USE OR STORE IN OR AROUND THE HOME.
- DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
- THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT

#### FIRST AID

Contains Paraquat, a Bipyridylium Herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment

ti catilicit.	
If Swallowed:	Call a poison control center or doctor IMMEDIATELY for treatment advice.     SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an adsorbent such as activated charcoal, bentonite or Fuller's Earth.     Do not give anything by mouth to an unconscious person.
If Inhaled:	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

If in Eyes:

 Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

• Call a poison control center or doctor for further treatment

• Call a poison control center or doctor for treatment advice.

If on Skin or Clothing:

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15 to 20 minutes.

• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Administer either activated charcoal (100 g for adults or 2.0 g/kg body weight in children) or Fuller's Earth (15% solution; 1.0 liter for adults or 15.0 ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning. Probable mucosal damage may contraindicate the use of gastric lavage.

## 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 SafetyCall at 1-844-685-9173 for emergency medical treatment information.

#### For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

See inside label booklet for additional Precautionary Statements and Directions for Use.

Manufactured for: Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513 EPA Reg. No. 91234-87 EPA Est. No. \_\_\_\_\_ NET WEIGHT: \_\_\_\_\_

# **{LANGUAGE AFFIXED TO CAP}**

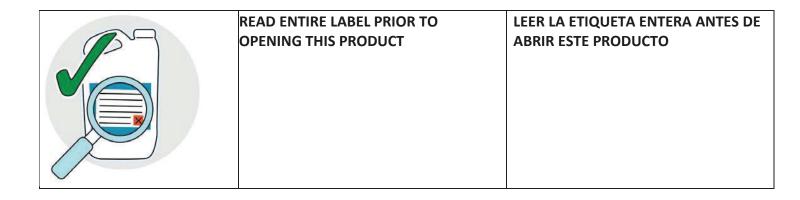




PELIGRO – UN SORBO PUEDE MATAR

# {PRODUCT PACKAGE SAFETY LANGUAGE AFFIXED TO CONTAINER}

	NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES	NUNCA TRANSFEIERA ESTE PRODUCTO EN ENVASES DE ALIMENTOS O BEBIDAS O EN RECIPIENTES QUE NO SEAN ESPECIFICAMENTE PREVISTOS PARA PESTICIDAS.
DANGER POISON X PELIGRO VENENO X	ONE SIP CAN KILL	UN SORBO PUEDE MATAR
	CONTACT WITH SKIN MAY RESULT IN POISONING	EL CONTACTO CON LA PIEL PUEDE RESULTAR EN ENVENENAMIENTO
EYE IRRITANT	EXPOSURE TO EYES MAY CAUSE SUBSTANTIAL EYE INJURY	LA EXPOSICIÓN A LOS OJOS PUEDE CAUSAR LESIONES GRAVES A LOS OJOS
	PARAQUAT SHOULD ALWAYS BE STORED TIGHTLY CLOSED IN ORIGINAL CONTAINER, AND IN A LOCKED PLACE AWAY FROM CHILDREN AND ANIMALS	PARAQUAT DEBE ALMACENARSE SIEMPRE CERRADO EN CONTENEDOR ORIGINAL, Y EN UN LUGAR CERRADO, ALEJADO DE NIÑOS Y ANIMALES



# {PARAQUAT DICHLORIDE SAFETY COUNTER CARD LANGUAGE}

	NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES	NUNCA TRANSFEIERA ESTE PRODUCTO EN ENVASES DE ALIMENTOS O BEBIDAS O EN RECIPIENTES QUE NO SEAN ESPECIFICAMENTE PREVISTOS PARA PESTICIDAS.
DANGER POISON X PELIGRO VENENO X	ONE SIP CAN KILL	UN SORBO PUEDE MATAR
	CONTACT WITH SKIN MAY RESULT IN POISONING	EL CONTACTO CON LA PIEL PUEDE RESULTAR EN ENVENENAMIENTO
DANGER EYE IRRITANT	EXPOSURE TO EYES MAY CAUSE SUBSTANTIAL EYE INJURY	LA EXPOSICIÓN A LOS OJOS PUEDE CAUSAR LESIONES GRAVES A LOS OJOS
	PARAQUAT SHOULD ALWAYS BE STORED TIGHTLY CLOSED IN ORIGINAL CONTAINER, AND IN A LOCKED PLACE AWAY FROM CHILDREN AND ANIMALS	PARAQUAT DEBE ALMACENARSE SIEMPRE CERRADO EN CONTENEDOR ORIGINAL, Y EN UN LUGAR CERRADO, ALEJADO DE NIÑOS Y ANIMALES

READ ENTIRE LABEL PRIOR TO OPENING THIS PRODUCT	LEER LA ETIQUETA ENTERA ANTES DE ABRIR ESTE PRODUCTO
DISREGARDING LABEL DIRECTIONS IS	IGNORAR LAS INSTRUCCIONES DE LA
A VIOLATION OF FEDERAL LAW AND	ETIQUETA ES UNA VIOLACÍON DE LA
IS PUNISHABLE BY SUCH	LEY FEDERAL Y ES CASTIGABLE POR LA
	MISMA