Restricted Use Pesticide

Due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

WILLOWOOD USA

PARAQUAT 3SL

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.
NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
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.

ACTIVE INGREDIENT:
Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) 43.2%
OTHER INGREDIENTS: 56.8%
TOTAL: 100.0%
Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon. Contains emetic and stench (odor).

EPA Reg. No. 87290-35

EPA Est. No. 62171-MS-001
39578-TX-001
61842-CA-001

Specimen

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.)

FIRST AID Contains Paraquat, a Bipyridinium Herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
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 absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/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.	
EMERGENCY NUMBERS: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour medical emergency assistance (human or animal) call **(800) 222-1222**. For chemical emergency assistance (spill, leak, fire, or accident) call ChemTrec at **(800) 424-9300**.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

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:

- Long-sleeved shirt and long pants
- Chemical resistant gloves - Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- Shoes plus socks
- Protective eyewear
- Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides NIOSH approval number prefix TC-23C), or a canister approved for pesticides (NIOSH approval number prefix TC-14G), or a

NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N,R, P, or HE prefilter.

Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
- Shoes plus socks
- Chemical resistant apron
- Face shield
- Respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides NIOSH approval number prefix TC-23C), or a canister approved for pesticides (NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N,R, P, or HE prefilter.

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: 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 RECOMMENDTIONS

Users should:

- Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet.
- Remove clothing 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.

RESISTANCE MANAGEMENT

GROUP 22 HERBICIDE

This product is a Group 22 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 22 herbicides. Weed species with acquired resistance to Group 22 may eventually dominate the weed population if Group 22 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 22 herbicides. To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 22 herbicides that have a similar target site of action on the same weed species.
- Using 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.
- Basing herbicide use on a comprehensive IPM program.

Specimen

- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

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. Do not use around home gardens, schools, recreational parks, golf courses 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 (REI). 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 postemergence 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,
- Chemical resistant gloves - Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton),
- 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 Willowood Paraquat 3SL is applied at less than 10 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.

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 determines 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.

Specimen

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

The applicator should be familiar with and take into account the information covered in the 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 management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher specified rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle 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 must 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 application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

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

Wind

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

Specimen

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

Willowood Paraquat 3SL is a liquid formation containing 3 lbs. 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

Willowood Paraquat 3SL 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 **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL**.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up **Willowood Paraquat 3SL**.

ROTATIONAL CROPS

After the last application of **Willowood Paraquat 3SL**, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL**.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) 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 15-20% approved emulsifier, with 1.0% v/v, (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use crop oil concentrate when using Willowood Paraquat 3SL.**

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of **Willowood Paraquat 3SL**. 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 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)	30-50 psi	30-50 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%

Specimen

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

SPRAY CARRIER

Willowood Paraquat 3SL 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 **Willowood Paraquat 3SL** 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 still be used with **Willowood Paraquat 3SL**. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF WILLOWOOD PARAQUAT 3SL

With each use, follow rates listed in the following tables. 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. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. 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 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 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 **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL**.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate per acre for Willowood Paraquat 3SL is:	Add The Following Amount of Willowood Paraquat 3SL to 1 Gallon of Water:
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl. oz.
3 pts.	2/3 fl. oz.

Add 1/3 -1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

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

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix **Willowood Paraquat 3SL** with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of **Willowood Paraquat 3SL**. This allows **Willowood Paraquat 3SL** to thoroughly distribute throughout a treated leaf, thus achieving better control than if **Willowood Paraquat 3SL** was applied alone.

Willowood Paraquat 3SL may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide Lariat® Herbicide

Specimen

Atrazine Herbicide
Bicep Lite II
MAGNUM® Herbicide
Bicep MAGNUM® Herbicide
Canopy® Herbicide
Lexone® Herbicide
Linex® Herbicide
Lorox® Herbicide
Princep® Herbicide
Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

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
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide 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 morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with **Willowood Paraquat 3SL**.

Order of Tank Mixing

Mix **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL** to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

PRODUCT USE PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

Willowood Paraquat 3SL 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 **Willowood Paraquat 3SL** 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.

DIRECTIONS

- Form seedbeds and plantbeds as far ahead of planting and treatment as possible to enable maximum weed and grass emergence prior to treatment.
- Avoid disturbing soil when seeding or transplanting.

PRECAUTIONS

- **Unless otherwise indicated, Willowood Paraquat 3SL will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.**
- 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.
- **Willowood Paraquat 3SL** will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

RESTRICTIONS

Specimen

- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Do not use around home gardens, schools, recreational parks, 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 INSTRUCTIONS

Crop	Weeds	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre harvest Interval (Days)
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: 10 gals. Air: 5 gals.	70
Directions • Applications should be made 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 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.					
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
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 make more than 2 applications per year.					
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London Rocket, Sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3 – 2.0 pts.	Ground: 10 gals. Air: 5 gals.	42

Specimen

Crop	Weeds	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre harvest Interval (Days)
Directions • 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 (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Precautions** • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. **Restrictions** • Do not make more than one application per year. • **Fall Regrowth**: Do not apply if last cutting is greater than 6”. • **Spring Regrowth**: Do not apply if last cutting is greater than 2”. • Do not cut or harvest within 42 days after application.					
ALFALFA Dormant season Tank Mix with Velpar® L Herbicide Region A - See table at end of Alfalfa section	Weeds, including chickweed, downy brome, and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 10 gals.	42
Directions • When weeds are less than 4 inches tall, apply at 0.7 pt. rate **Willowood Paraquat 3SL**. • Mix **Willowood Paraquat 3SL** with 1-2 qts.of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • 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 make more than 2 applications per year. • **Fall Regrowth:** Do not apply if last cutting is greater than 6”. • **Spring Regrowth:** Do not apply if last cutting is greater than 2”. • 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.					

Specimen

Crop	Weeds	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre harvest Interval (Days)
ALFALFA Dormant Season **On established plantings:** Region B: See table at end of 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 suppression of perennial weeds **California**: Desiccation of weeds including bluegrass, ryegrass, shepherds-purse, chickweed, tanseymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60
On fall-seeded newly established stands less than 1-year-old: Region A - See table at end of Alfalfa Section.		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60
On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section.		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60

Directions

- Applications should be made 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 (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old.
- Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations and restrictions.

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 weed weight.

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.

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray per Acre	Grazing or Pre-harvest Interval (Days)
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30

Directions

- 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 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.

Table 2. ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).

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

*** Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

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	Willowood Paraquat 3SL Rate per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	--

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Avoid allowing spray to contact green stems (except suckers) or foliage. • 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 make more than 5 applications per year. • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground.				
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1
Directions • Applications must be made at least 7 days apart. **Restrictions** • Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Do not harvest within 24 hours of last application.				
ASPARAGUS	Preplant or Pre-emergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Application should be made prior to emergence of the crop. **Precautions** • Emerged asparagus at time of application will be killed. **Restrictions** • Do not make more than 3 applications per year.				
ASPARAGUS Preemergence to established plantings at least 2 years old	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6
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 make more than 3 applications per year.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7
Directions • Add nonionic spreader at 1 qt./100 gals. 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. **Precautions** • Not registered for use in dry beans and dry peas in California. **Restrictions** • Do not make more than 2 applications per year. • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included.				
BERRIES Blackberry Blueberry Boysenberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	-

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Apply before emergence of new canes or shoots to avoid injury. • Apply as a coarse spray to prevent crop injury. **Restrictions** • Do not make more than 5 applications per year.				
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1
Directions • Apply when weeds are succulent and growth is from 1-6”. • 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 make more than 5 applications per year. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.				
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90
Directions • Make applications when weeds are succulent and growth is 1-6”. • Prevent spray from contacting crop to prevent injury to crop. **Restrictions** • **Cassavas and Taniers**: Do not make more than 3 applications per year. • **Yams**: Do not make more than 2 applications per year. • 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 **Willowood Paraquat 3SL**. 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 band treatment.
- Before applying **Willowood Paraquat 3SL**, cut wheat as high as possible to avoid cutting weeds too short and allow the weeds to grow at least 2-3” 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. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.
- 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 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.
- When applying at less than 10 GPA by ground:
  - Do not apply with floaters or exceed a speed of 10 mph.
  - Apply with flat fan nozzles at 30-40 psi.
  - Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre.
  - By air: apply in 5-10 gallons of spray mix per acre.

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre-harvest Interval (Days)
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2.0 pts. Weeds 6”: 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—
Directions • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of **Willowood Paraquat 3SL** per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section “Product Information for Chemical Fallow”. **Restrictions** • Do not make more than 3 applications per year.				
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”:1.7-2 pts. Weeds 6”: 2-2.7pts.	Ground: 5 gals. Air: 5 gals.	—
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, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weed tank mix with metribuzin (Sencor 75DF). Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and refer to the section “Product Information for Chemical Fallow”. **Restrictions** • Do not make more than 3 applications per year.				
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	-
Directions • 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 pts. of **Willowood Paraquat 3SL** 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, (Sencor 75DF/Lexone). Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre-harvest Interval (Days)
CHEMICAL FALLOW Wheat-Annual Crop[1]-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	-
Directions • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or bamyardgrass 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 make more than 3 applications per year.				
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop[1])	Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	-
Directions • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of **Willowood Paraquat 3SL** 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 make more than 3 applications per year.				

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

Specimen

Crop	Weeds	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per 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, downy brome, and other winter annuals, and suppression of perennial weeds. **California:** Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60
Dormant Season: On established plantings: Region B-See table at end of Alfalfa section.		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60
On fall-seeded Newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60
On fall-seeded, newly established stands less than 1-year-old: Region B – See table at end of Alfalfa section.		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60

Specimen

Crop	Weeds	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)

Directions

- Applications should be made 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 make more than 1 application per year.
- Do not apply if regrowth after grazing or cutting is more than 2".
- Do not harvest within 60 days of application.

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
CORN **FIELD CORN** **POPCORN** **SWEET CORN** **SEED CORN** (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	-

Directions

- 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 make more than 3 applications per year.

CORN Tank mixes for no-till/reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	-

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • **Willowood Paraquat 3SL** may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile), Harness®, Harness® Extra, AAtrex®/Atrazine, Lasso® Herbicide, Banvel®, Linex®, Bicep MAGNUM®, Lorox®, Bicep Lite II MAGNUM®, Princep®, Dual MAGNUM Prowl® Herbicide, Frontier®, Simazine®, Guardsman®, Surpass® EC, Harmony® Extra Herbicide, Surpass® 100, (Preplant only) Topnotch®. • **Willowood Paraquat 3SL** may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air. **Restrictions** • Do not make more than 3 applications per year.				
FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	-
Directions • Applications should be made when weeds are actively growing. • Use a higher specified rate on larger or hard to control weeds. Weeds 6” or taller may not be controlled. **Precautions** • Severe damage and/or complete kill can occur if spray contacts corn plants. **Restrictions** • Do not make more than 3 applications per year. **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” tall with nozzles arranged to spray no higher than the lower 3” of corn stalks. • For corn more than 20” tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. **Precautions** • Corn plants shorter than 10” may be injured and not recover. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.				
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7
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”, 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 make more than one application per year. Make ONE (1) application at least 7 days prior to harvest.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed Eradication Program	1.3 pts.	Ground: 10 gals.	
Directions • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application instructions in post-emergence directed spray section above. **Restrictions** • Do not make more than 3 applications per year.				
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. + 0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	-
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. • Always refer respective product label(s) for rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
COTTON: **For all cotton uses, do not exceed 8 pints of Willowood Paraquat 3SL (3 lbs. a.i.) per acre per season.**				
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	-
Directions • Apply prior to, during or after planting but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance. **Restrictions** • Do not make more than 3 applications per year.				
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	-
Directions • For control of volunteer barley in preformed seedbeds. **Restrictions** • Do not make more than 3 applications per year.				
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground or Air: 10 gals.	-
Directions • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	-

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, **Willowood Paraquat 3SL** may be tank mixed with the following herbicides: Caparol® Herbicide, Cotoran® Herbicide, Cotton-Pro® Herbicide, Diurone®, Dual MAGNUM®, Harmony Extra (Preplant Only), Meturon® Herbicide, MSMA Prowl®, Zorial® Herbicide • When tank mixing with Cotoran DF® or Meturon DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
COTTON	Postemergence Directed Spray (Hooded or Shielded)	0.8 to 1.3 pts	10 gals	
Directions • Apply when weeds are actively growing and between 1- 6” 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. **Restrictions** • Maximum number of applications per year is 3. • 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).				

COTTON Harvest Aid Use Restrictions

- Do not make more than 4 applications per year.
- Do not pasture livestock in treated fields or feed treated foliage.
- Do not apply to cotton within 3 days before harvest.
- Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.
- 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. **Willowood Paraquat 3SL** 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.

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7
Directions • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions. **Precautions** • Development of immature bolls will be inhibited. **Restrictions** • Do not make more than 4 applications per year.				
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2.1-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	-
Directions • **Willowood Paraquat 3SL** may be tank mixed with the following products to aid in defoliation and opening of mature bolls: Accelerate® Defoliant, Def®, Defoliant, Dropp® Defoliant, Ethephon Plant Growth Regulator, Folex® Defoliant, Harvade®, Harvest Growth Regulator, Prep™ PGR. • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 4 applications per year. • Development of immature bolls will be inhibited.				
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3
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 **Willowood Paraquat 3SL** approximately 3-7 days to minimize leaf sticking. **Precautions** • Development of immature bolls will be inhibited. **Restrictions** • Do not make more than 4 applications per year.				
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate and/or other compatible harvest aid products.	Ground: 10 gals. Air: 5 gals.	7

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • 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. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 4 applications per year. • Do not use more than 5.4 fl. oz of **Willowood Paraquat 3SL** for early defoliation as excessive desiccation may occur. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing.				
WESTERN COTTON Harvest aid for boll opening and Mid-to-late defoliation	Broadcast	5.4-10.7 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 fl. oz. rate of **Willowood Paraquat 3SL** in desert cotton areas or on rank vigorous cotton. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions. **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 make more than 4 applications per year.				
Cotton Stripper or Spindle Harvested Harvest aid for defoliation and boll opening	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • 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. • **Willowood Paraquat 3SL** may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant®, Def Defoliant®, Dropp Defoliant®, Ethephon Plant Growth Regulator, Folex Defoliant®, Harvade® Harvest Growth Regulator, Prep™ PGR. • May be applied as a split application. • To avoid leaf sticking, apply **Willowood Paraquat 3SL** as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions. **Precautions** • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED. SLICE BOLLS AND INSPECT THE SEED FOR MATURITY. • Cooler temperatures may cause a longer waiting period between application of **Willowood Paraquat 3SL** as a desiccant and defoliation/conditioner. **Restrictions** • Do not make more than 4 applications per year. • Do not exceed a total of 1.3 pts./A.				
COTTON Late season desiccation		0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3
Directions • 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 **Willowood Paraquat 3SL** approximately 3-7 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 make more than 4 applications per year. • Do not exceed a total of 1.3 pts./A.				
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3
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 make more than 4 applications per year.				
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Restrictions • Do not exceed two applications per year.				
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, 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”, 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 make more than 2 applications per year, during the fallow period.				
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	
Directions • Prepare the seedbeds and allow weeds to germinate. • Apply **Willowood Paraquat 3SL** when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. **Restrictions** • Do not make more than 3 applications per year. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.				
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4
Directions • Apply after the pods are fully mature. **Restrictions** • Do not make more than 3 applications per year. • Do not graze treated areas or use the treated forage for animal feed.				
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	
Precautions • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials. **Restrictions** • Do not make more than 4 applications per year. • 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.				
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Chemical Pruning: Spray when vines are less than 3 ft. 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 FT. TALL MAY CAUSE UNACCEPTABLE INJURY. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using **Willowood Paraquat 3SL** 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 make more than 3 applications per year. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards.				
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7
Directions • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals.) 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 make more than 2 applications per year. • **DO NOT** make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • **DO NOT** apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.				
MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Apply when crop is dormant before spring growth begins and when weeds are less than 6” tall. • May be tank mixed with Sinbar® Herbicide(terbacil) 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 season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **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 pts./A per dormant season.				
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
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 make more than 1 application per year. • Apply only one application per season at the 2.7 pts./A dosage. • Apply a maximum of 2.7 pts./A per season.				
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.	
Directions • 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 make more than 5 applications per year. • Do not allow animals to graze on treated areas.				
PEANUTS	Broadcast At ground crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	
Directions • To control or suppress small (1-6”) 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, **Willowood Paraquat 3SL** can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. **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 make more than 2 applications per year. • Make no more than 2 applications per season and do not apply total of more than 10.8 fl. oz. of product per acre per season. • Do not apply by air.				
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At ground crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	--

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Tank mix **Willowood Paraquat 3SL** with Basagran at 1 pt./A. 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. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **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 make more than 2 applications per year. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Do not apply by air.				
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	
Directions • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix **Willowood Paraquat 3SL** with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **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 make more than 2 applications per year. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per Season. • Do not apply by air.				
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60
Directions • Cannery waste can be fed to livestock. **Precautions** • Avoid contact with pigeon pea foliage. **Restrictions** • Do not make more than 1 application per year. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock				
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20
Precautions • More mature weeds may require retreatment. **Restrictions** • Do not exceed 3 applications per season.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Apply up to ground cracking stage, before potatoes have emerged. **Restrictions** • Do not make more than 3 applications per year.				
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • For control of volunteer barley in preformed seedbeds. **Restrictions** • Do not make more than 3 applications per year.				
POTATO 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	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3
Directions • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • Begin application when leaves begin to turn yellow. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/A. Split applications must be applied a minimum of five days apart. **Precautions** • Immature potato foliage is tolerant to **Willowood Paraquat 3SL**. 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 pts./A per season.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
RICE	Preplant or Preemergence Broadcast	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2.0 pts. Weeds 6”: 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	-
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. • **Willowood Paraquat 3SL** may be tank mixed with other herbicides registered for this use for Improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **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 make more than 3 applications per year. • 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 Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Apply before, during and after planting but before crop emergence. **Restrictions** • Do not make more than 3 applications per year.				
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	
Directions • For control of volunteer barley in preformed seedbeds. **Restrictions** • Do not make more than 3 applications per year.				
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	
Restrictions • Do not make more than 3 applications per year.				
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6” in height. Weeds 6 inches or taller may not be controlled. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year. • Do not apply this tank mix to barley as crop injury may result.				
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)
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 make more than 3 applications per year.				
SORGHUM (Grain) Atrazine & 2,4-D ester [Low Volatile] Tank Mix	Preplant or Preemergence	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.		48 (grain) 20 (forage)
Directions • **Willowood Paraquat 3SL** 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. • Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)
Directions • For Improved weed control, **Willowood Paraquat 3SL** may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)

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

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

Restrictions
- Do not make more than 2 applications per year.
- Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. **Willowood Paraquat 3SL** per season.

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” tall when naturally standing.
- Use precision directed-spray application equipment adjusted so that no more than the lower 3” 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 Preemergence	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	

Directions
- Apply as a broadcast spray before, during or after planting, but before crop emergence.
- **Willowood Paraquat 3SL** can be tank mixed with the following herbicides for improved burndown or residual control:

2,4-DB	Lorox Plus Prowl
Canopy Dual MAGNUM	Pursuit Herbicide
Goal	Scepter Herbicide
Harmony Extra (Preplant only)	Sencor Herbicide
Lasso	Surflan® Herbicide
Lexone	Turbo Herbicide
Linex	

- 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 **Willowood Paraquat 3SL**. Always refer to the product label(s) for a list of weeds controlled, rates of applications, directions for use, llimitations, and restrictions.
- The lower application rate may be used when weeds are less than 4” 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 make more than 3 applications per year.
- Do not exceed a total of 4.0 pts. of **Willowood Paraquat 3SL** per season.
- Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3”: 1.3-1.7 pts. Weeds 3-6”: 1.7-2 pts. Weeds 6”: 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i/A at least 30 days prior to planting. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year. • 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 Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Apply when weeds are actively growing. • Use the lower rate of **Willowood Paraquat 3SL** for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2” tall. • For control of 2-4” red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of **Willowood Paraquat 3SL**. • Use 5.3 fl. oz. of **Willowood Paraquat 3SL** for control of 2-3” sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply **Willowood Paraquat 3SL** at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4” grasses in mixture with common cocklebur, morningglory, and red rice. Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If necessary, make a second and final application 7-14 days later. **Restrictions** • Do not make more than 3 applications per year. • 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”) or hard to control weeds. Weeds 6” 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” 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 on soybeans that are less than 8” tall. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift.				
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz	Ground: 20 gals. Air: 5 gals.	
Directions • Always use the higher specified rate when treating cocklebur. • Indeterminant varieties: Applications should be made 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 **Willowood Paraquat 3SL** and desiccation will not be complete. • Injury will occur on immature soybeans. **Restrictions** • Do not make more than 3 applications per year. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.				
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • Direct spray between the rows, using shields to prevent spray contact with crop plants. **Restrictions** • Do not make more than 3 applications per year. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.				
SUGAR BEETS	Preplant or Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
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 make more than 3 applications per year.				
SUGAR-CANE	Postemergence Directed Spray (includes Hooded or Shielded)			
Directions • 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 2-6” 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.				
SUGAR-CANE Florida		1.3 pts.	Ground: 50 gals	
Directions • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. **Restrictions** • Do not make more than 2 applications per year. • Do not apply after June 1 as cane growth may be stunted and yields reduced.				
SUGAR-CANE Hawaii		1.3 pts.	Ground: 20 gals.	
Restrictions • Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.				
SUGAR-CANE Louisiana		0.7-2.0 pts.	Ground: 20 gals.	30
Directions • For tiller control, apply when tillers are less than 18” high. • For heavier weed infestations or tiller growth use the higher specified rate. **Restrictions** • Do not make more than 2 applications per year.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
SUGAR-CANE Florida & Texas	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	
Directions • Under cool, cloudy weather conditions use higher specified rate. • Apply 3-14 days before burning and harvest. **Restrictions** • Do not make more than 1 application per year.				
SUNFLOWER	Preplant Preemergence Broadcast Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • Apply before, during, or after planting but before crop emergence. **Restrictions** • Do not make more than 3 applications per year.				
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7
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 make more than 2 applications per year. • Do not graze treated areas or feed treated forage to livestock.				
TARO, DRYLAND **(Hawaii Only)**	Postemergence Directed Spray	1.3-2.1 pts.	Ground: 10 gals.	180
Directions • Make the first application when weed growth is 1-4” 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 make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result.				
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	1.3-2.7 pts.	Ground: 20 gals.	
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 **Willowood Paraquat 3SL** with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year. • Do not apply in less than 20 gals./A as weed control will be reduced.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
TREES AND VINES Orchards, Vineyards, Windbreak Shade & Ornamental Trees: Acerola, Apples, Apricots, Avocados, Bananas, Beechnut, Brazil nut, Butternut, Calamondin, Cashew, 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, Other shade and ornamental trees including arborvitae, ash, elm, fir, oak, pine, etc.	Directed Spray	1.7-2.7 pts	Ground: 10 gals.	Apricots: 28 Cherries: 28 Figs: 13 Kiwi Fruit: 14 Nectarines: 28 Olives: 13 Peaches: 14 Pistachios: 7 Plums: 28

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • 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 season. • **For cherries** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For figs** - Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • **For grapes** - Treat when sucker growth is no more than 8” long. Late season applications to weeds should be made 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 season. • **For olives** - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season • **For peaches** -Do not harvest within 14 days after application and do not exceed 3 postemergence directed applications per season. • **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 season.				
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels
Directions • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. **Willowood Paraquat 3SL** may be tank mixed with the following herbicides: Devrinol® Herbicide, Goal®, Karmex®, Krovar® Herbicide, Princep®, Sinbar®, Solicam® Herbicide, Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **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.				
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
Directions • 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 make more than 3 applications per year.				
VEGETABLES (Seeded or Transplanted) Beans (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	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	_
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. • **Willowood Paraquat 3SL** can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year. • Crop plants emerged at time of application will be killed. • Do not harvest tomatoes within 30 days after application.				
VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	
Directions • 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”. **Restrictions** • Do not make more than 3 applications per year. • Do not exceed 30 psi nozzle pressure. • Do not spray under conditions which may cause excessive drift. • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)
VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	
Directions • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals, 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** • **Willowood Paraquat 3SL** may be deactivated and less efficacious when dirty or muddy water is used. **Restrictions** • Do not make more than 2 applications per year. • **DO NOT** apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).				
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • For control of volunteer barley in preformed seedbeds. **Restrictions** • Do not make more than 2 applications per year. • Do not harvest tomatoes within 30 days after application.				
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	
Directions • Apply during dormant season before buds in crown begin to grow. **Restrictions** • Do not exceed 2 applications per year.				

Specimen

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 **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL** 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 **Willowood Paraquat 3SL** to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. 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 1.7-5.0 ml) **Willowood Paraquat 3SL** solution (1-5% 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 ml of 2 or 4% **Willowood Paraquat 3SL** solution will cover the 1-inch wide streak and will result in application of 60 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 **Willowood Paraquat 3SL** and tree harvest. However, it is preferable the interval is from 12-24 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/between treatment and tree harvest.

Dilution Table for Willowood Paraquat 3SL (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	**Add the Following No. Gal. of Water to 2/3 Gallon of Willowood Paraquat 3SL**
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**	**Willowood Paraquat 3SL Rate Per Acre**	**Minimum Total Spray Per Acre**	**Grazing or Pre-harvest 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	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	
Directions • **Willowood Paraquat 3SL** may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. • Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 3 applications per year.				
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: 10 gals.	
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** • Avoid spray contact with the foliage of ornamentals or desired plants.				
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic directions

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre-harvest Interval (Days)
Restrictions • Do not make more than 3 applications per year. **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 pts 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” in height at time of treatment. **Directions Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3” 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.				
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	
Directions • Use split applications of 10-21 days apart if necessary. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4” high. **Restrictions** • Do not make more than 2 applications per year. • Do not exceed 2.6 pts./A total in preparation for reseeding. • To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year’s crop.				
*For prickly pear desiccation in pastures *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	
Directions • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand guns, and hand wands can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of **Willowood Paraquat 3SL** and 1/3 fl. oz. 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” of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **Restrictions** • Do not make more than 10 applications per year. • Do not use more than 1.6 pts. of **Willowood Paraquat 3SL** per acre per year.				

Specimen

Crop	Use Pattern	Willowood Paraquat 3SL Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Pre-harvest Interval (Days)
*For Juniper Species leaf moisture reduction or desiccation prior to prescribed burning of pastures *Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	

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 gal spray solution.
- Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after **Willowood Paraquat 3SL** 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 make more than 10 applications per year.
- Do not graze livestock after application or prior to burning.

*Native Pastures *Not for use in California	Broadcast	1.0-1.25 pts.	Ground: 10 gals. Air: 5 gals.	

Directions

- Apply **Willowood Paraquat 3SL** 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” 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 make more than 2 applications per year.
- Do not apply more than 1.25 pts. **Willowood Paraquat 3SL** per year.

Conversion Table

Willowood Paraquat 3SL to Be Applied

Fluid Ounces	Pints	Lb. a.i.	Acres/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

Specimen

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable Container (rigid material; less than 5 gallons):

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, 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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Willowood, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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