HOPS (ID, OR, & WA ONLY)

General Information

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.
- 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.

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.

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 in the label.

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 in the label if only small areas are to be sprayed with labeled applications.

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.

LIMITATIONS AND 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.
- 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.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damaged when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product. To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.
- Willowood Paraquat 3SL will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

Refer in the label for tank mix information.

Limitations, Restrictions, and Exceptions

HOPS (ID, OR, & WA ONLY)

Directed Spray and/or Suckering and Stripping

Minimum Total Spray Per Acre: Ground: 10 gals.

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 allow spray to contact green stems, foliage, flowers, or cones as injury may result.

- Do not allow animals to graze in treated hopyards.

Method

Broadcast/Foliar Ground
Directed Spray
Suckering
Stripping

Pre-Harvest Interval

14 days

Rates

field rates 0

Restricted Entry Interval

For early post-emergence 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.

Timings

N.A.