



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 4, 2024

Brien O'Loughlin
Regulatory Consultant for Loveland Products, Inc.
Pyxis Regulatory Consulting Inc.
4110 136th St. Ct. NW
Gig Harbor, WA 98332

Subject: Label Amendment - Registration Review Mitigation for Halosulfuron-methyl
Product Name: LPI Halosulfuron
EPA Registration Number: 34704-1140
Application Date: September 14, 2022
Decision Number: 587524

Dear Brien O'Loughlin:

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

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

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

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

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

Sincerely,

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

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

ENCLOSURE: Stamped label

SUBLABEL A: Crop and Turf combined label

[Note to reviewer: [Text] in brackets denotes optional text].

[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

{BOOKLET FRONT PANEL LANGUAGE}

HALOSULFURON-METHYL	GROUP	2	HERBICIDE
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LPI Halosulfuron

Alternate Brand Name: Protos 75 WDG

LPI HALOSULFURON is a herbicide for selective pre-emergent and post-emergent control of listed weeds including both broadleaf weeds and nutsedge in labeled crop and non-crop sites.

Contains halosulfuron, the active ingredient used in [Permit[®] (EPA Reg. No. 81880-26) [and] [Sandea[®] (EPA Reg. No. 81880-18)] [and] [SedgeHammer[®] (EPA Reg. No. 81880-1)].

ACTIVE INGREDIENT:	% BY WT.
Halosulfuron-methyl	75%
OTHER INGREDIENTS:	25%
TOTAL:	100%

KEEP OUT OF REACH OF CHILDREN

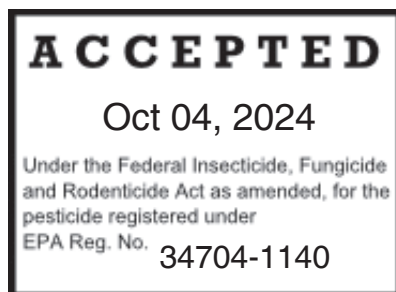
CAUTION

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	
IF IN EYES:	<ul style="list-style-type: none">• 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 poison control center or physician for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call poison control center or physician immediately for treatment advice.• Remove visible particles from mouth.• Have person rinse mouth thoroughly with water, spit out rinse water.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.	

[Note to Reviewer: First Aid language will appear inside label booklet for product packaged in 1.33 oz. bottles due to label front panel size and available print area]

See inside booklet for [First Aid] [and] additional Precautionary Statements and Directions for Use.



EPA Reg. No. 34704-1140
EPA Est. No.
Net Weight:
[Print Code to be placed here]

MANUFACTURED FOR:
LOVELAND PRODUCTS, INC.
P.O. BOX 1286
GREELEY, COLORADO 80632-1286

[LPI Halosulfuron] is not manufactured or distributed by Gowan Company, LLC, seller of [Permit® (EPA Reg. No. 81880-26)] [and] [Sanda® (EPA Reg. No. 81880-18)] [and] [SedgeHammer® (EPA Reg. No. 81880-1)].

{LANGUAGE INSIDE BOOKLET}

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants, and
- shoes plus socks

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 CONTROL STATEMENTS:

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

USER SAFETY RECOMMENDATIONS:

Users should:

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

ENVIRONMENTAL HAZARDS

This product is toxic to non-target vascular plants. Do not apply directly to water, 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 washwaters or rinsate.

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

Halosulfuron-methyl is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for

reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of halosulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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

PHYSICAL OR CHEMICAL HAZARDS

Do not mix with or allow to come into contact with oxidizing agents. A hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Loveland Products, Inc. Supplemental 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.

Read the entire label before using this product. Use only according to label instructions.

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, forest, nurseries and green houses, 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 the label about personal protective equipment (PPE), restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves, made of nitrile rubber, neoprene rubber or polyethylene.

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep people and pets off treated areas until spray solution has dried.

Product Information

LPI HALOSULFURON is a sulfonylurea herbicide that works by inhibition of acetolactate synthase (ALS). Many factors such as application rate, weed species, weed pressure, conditions of weeds including size and climatic factors impact the degree of weed control. Applications made to actively growing weeds at the early stages of development as described below will optimize performance. In post-emergent weed applications, early treatment is best to control the weeds vying (competing) with the crop. For residual control from early post-emergent treatments (in corn) a second application may be needed to control later germination of weeds.

LPI HALOSULFURON is quick to act on targeted weeds by stunting growth allowing the crop to overtake the development of the targeted weeds. Once the development of the targeted weeds is stunted, the leaves and growing point begin to discolor and die. Complete control typically occurs within 7 to 14 days depending on the weed size, species and growing conditions. Depending on the stage and development of the targeted weeds,

control generally takes place in 7 to 14 days.

Windblown Soil Particles

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

Weed Resistance Management

The active ingredient in LPI Halosulfuron is halosulfuron-methyl, which is a acetolactate synthase ALS inhibitor (Group 2). A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

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

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

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
5. Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
6. When using mixtures of herbicides, note that each listed weed may not be controlled by multiple mechanisms of action.
7. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
8. Control any weeds that may have escaped the herbicide application.
9. Thoroughly clean field equipment between fields.
10. Scout before and after application.

For further information or to report suspected resistance contact Loveland Products, Inc. retailer, representative or call 1-888-LPI-CUST [(574-2878)]. You can also contact your pesticide distributor or university extension specialist to report resistance. If resistance is suspected, treat weed escapes with an herbicide having a different

mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

Mixing Instructions

LPI HALOSULFURON is a water dispersible granule designed to be diluted with water at the rates listed in the specific crop use directions. Fill the spray tank with approximately ½ of the desired volume with water or carrier. With the agitation operating, add the specified amount of the formulation as listed in the targeted crop use directions. Complete the filling process while maintaining agitation. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source. Add nonionic surfactant and other spray additives as the last ingredients in the tank. Allow time to fully disperse.

Since this product forms a suspension in water, it is important to maintain good agitation during mixing and spraying. If the spray suspension is allowed to settle for a short period of time, be sure to agitate the spray suspension for a minimum 10 minutes. Apply spray solutions within 24 hours after mixing.

Spray Additives

Spray additives such as nonionic surfactant (NIS), or Crop Oil Concentrate (COC) and liquid nitrogen fertilizer (e.g. 28-0-0) are used with LPI HALOSULFURON to improve performance. The typical nonionic surfactant contains a minimum of 80% NIS and is accepted by the EPA for use on food crops. The use rate is 0.25 to 0.5% NIS concentrate (1 to 2 quarts per 100 gallons of spray mixture). An alternative for the nonionic surfactant is a Crop Oil Concentrate. The typical Crop Oil Concentrate is a phytobland oil (petroleum) or crop origin (vegetable) based product that containing a minimum 14% surfactant to allow it to be miscible with water. The use rate for the Crop Oil Concentrate is 1% vol/vol (1 gallon per 100 gallons of spray mixture). NIS or COC is the only spray additives required to improve efficacy. Do not use both NIS and COC in the spray mixture. Use liquid nitrogen for those tank mix partners which required a liquid nitrogen additive to improve performance. Consult the tank mixture partner's labels for specific additive requirements and interactions. In place of the liquid nitrogen fertilizer, a high quality, spray grade ammonium sulfate (e.g. 21-0-0) is used at a use rate of 2 to 4 pounds per acre. Use either NIS or COC in the spray mixture.

For specific details, consult the use directions in crop section of the label.

Use Rate Equivalency

Since LPI HALOSULFURON contains 75% active ingredient per lb. of product, the following table expresses the use rate equivalency of oz. of this product in term of lb. active ingredient on a per acre basis.

Ounce of Product	Pounds Active Ingredient
½	0.0235
⅔	0.031
1	0.047
1⅓	0.062
2	0.094
2⅔	0.125
5⅓	0.250

Application Methods

Apply this product by ground or with aerial equipment to produce uniform coverage on growing weeds or soil to achieve consistent weed control.

Uniform, thorough spray coverage is important to achieve consistent weed control. Calibrate application equipment according to manufacturer's specifications. Use nozzle type arrangements that provide optimum spray distribution and maximum coverage while avoid contact to sensitive crop foliage.

Thoroughly clean application equipment immediately after use and prior to spraying a crop other than corn or grain sorghum. See Spray Equipment Cleanout section of this label for complete details.

Ground Applications

When LPI HALOSULFURON is applied by ground equipment, use in a minimum of 10 gallons of water per acre for a broadcast application. In dense weed populations and thick canopy cover, higher spray volumes are necessary,

e.g. . 15 – 20 gallons of water per acre. Use the proper spray volume and nozzles that will ensure thorough and uniform coverage of the targeted weeds. Use directed applications to avoid contacting sensitive crop foliage. Select nozzles that will provide optimum spray volume, distribution and coverage at a pressure (psi) that minimizes spray drift. Inspect nozzle distribution during application to avoid streaking and overspray.

Aerial Applications

When LPI HALOSULFURON is applied by air, use in a minimum 3 - 15 gallons of water per acre. Properly calibrate the spray equipment. Follow the Spray Drift Management guidelines presented below. Inspect nozzle distribution during application to avoid streaking, overspray and spray drift.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ANSI/ASABE S641 MAY 2018).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASABE S641 MAY 2018).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ANSI/ASAE S572.3 FEB 2020).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASAE S572.3 FEB 2020).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ANSI/ASAE S572.3 FEB 2020) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

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

RELEASE HEIGHT - Aircraft

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

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed.

AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

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

Sensitive areas:

Use pesticide products adjacent to sensitive areas only when there is minimal potential for drift or off-target movement, e.g. wind is blowing away from non-target crops, residential areas, known habitats for threatened or endangered species, etc.

In California (only), particularly sensitive crops are identified as cotton and prunes. In applications near these sensitive crops utilize the following buffer zones:

- Do not apply aerial applications within 4 miles of sensitive crops.
- Do not apply ground applications within 1 mile of sensitive crops except when wind direction during the application is away from sensitive crops. When wind direction during the ground application is away from sensitive crops, do not apply within 0.5 miles of sensitive crops.
- Do not apply Direct Dry Applications on rice by air within 360 feet of sensitive crops.

Boom-less Ground Applications:

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

Spray Equipment Cleanout

The mix tank and spray equipment cleanout is an important stewardship activity to avoid injury to desirable crops. It is important to clean all mixing and spraying equipment immediately after use and before using pesticide products including LPI HALOSULFURON. This is especially important prior to spraying a crop other than grain sorghum and corn.

To clean the spraying equipment, follow the procedure outlined below:

- Completely drain the mix tank and/or sprayer, and then wash thoroughly the tank, sprayer, boom and nozzles with clean water. Drain the system again.
- Fill the mixing or spray tank half full with clean water and add domestic ammonium, normally a 3% solution, at a dilution rate of 1% vol/vol ammonium or 1 gallon per 100 gallons of rinsate.
- Completely fill the tank(s) with additional clean water. Agitate and recirculate and flush out the boom and hoses. Let the system run for 10 – 15 minutes. Drain the system completely.
- Remove nozzles and screens and dislodge any visible solid material. Then soak them in a 1% vol/vol ammonium solution. Inspect the nozzles and screen and remove any visual residues.
- Repeat the above procedure for a second time.
- Flush the mix tank and/or sprayer, boom and hoses with clean water. Drain the system again and inspect for any visible residues. If present, repeat the cleaning cycle again.
- If the rinsate 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.

Tank Mixtures

To improve this product's effectiveness, apply in combination with other pesticide products that are registered for the same crop and application techniques.

A list of potential herbicide tank mixture partners is provided in the use direction section under each crop. This list is an example of products used but is not an all inclusive list. For current information on the best tank mixture partner in your area, consult with the local dealer, distributor or State Agricultural Extension service.

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

If LPI HALOSULFURON is to be tank mixed with other herbicides, conduct a compatibility test prior to mixing. Use a small container and mix all components in a small amount, usually 0.5 to 1 qt. of spray. Combine all products in the same ratio and order of addition as in the proposed spray mixture. Observe the mixture for indication of incompatibility which usually occurs in 10 to 30 minutes after mixing. If incompatibility is observed, try changing the order of addition of the components. The guideline on tank mixture partners is driven by formulation type. Start with wettable powders (WP's) including water soluble bags (WSB's), water dispersible granules (WDG's), suspension concentrates (SC's) or flowable (F's), all with very good agitation. Next follow with water miscible concentrates and emulsifiable concentrates (EC's) before adding drift control additives, nonionic surfactants (NIS's) or crop oil concentrates (COC's). After vigorous agitation, there must be a homogeneous suspension. Let the final tank mixture stand and observe for any rapid settling or floating of components. If any indications of physical incompatibility develop, do not use this mixture for spraying.

Application Restrictions

- Do not use air assisted (air blast) sprayers to apply this product.
- Do not apply this product through any type of irrigation system.
- Do not apply when wind speed exceeds 15 mph.
- Do not apply more than 2 ounces of this product per acre per 12-month period (includes applications to the crop and to row middles/furrows) on crops except on fallow ground, field corn, sugar cane, tree nuts and turf.
- Do not apply more than 2 $\frac{2}{3}$ oz. of this product (0.125 lb. active ingredient) per acre per use season on fallow ground, field corn, sugar cane and tree nuts.
- Do not apply more than 5 $\frac{1}{3}$ oz. of this product (0.25 lb. active ingredient) per acre per use season on turf.
- Do not allow this product to drift outside of targeted area.
- Do not apply tank mixtures if the crop is under heavy stress due to drought, water-saturated soils, poor fertility (especially low nitrogen levels), hail, frost, insects or when the maximum daytime temperature is above 92° F.
- Do not use this product if the target weeds or crop are under stress due to drought, water saturated soils, low fertility (especially low nitrogen levels) or other poor growing conditions.

Application Precautions

- Avoid spraying when conditions favor rainfall or using overhead sprinkler irrigation within 4 hours of this application.
- Significant crop injury may occur when spray residue from broadcast application of this product over plastic mulch is concentrated in the plant hole by irrigation or rainfall. To minimize this potential injury, ensure that planting beds are crowned properly.
- Under cool and wet growing conditions that delay early seedling emergence, vigor or growth, this product may cause injury or crop failure. These conditions are likely to occur during the first planting of the season.
- Loss in effectiveness or crop injury may result if weeds are under drought, stress, disease or insect damage.
- The maturity of the treated crops may be delayed by use of this product.
- Soil or foliar-applied organophosphate insecticides applied on crops treated with this product, may increase the potential for crop injury and/or the severity of the crop injury.
- Increase in crop injury may result if the seeding depth is too shallow and excessive amounts of water (greater than 1 inch) from rainfall or sprinkler irrigation occurs.
- Use nozzles and pressures that minimize the production of fine particles that drift outside of the targeted area.
- Apply this product to labeled crops (including cultivars and/or hybrids of these). However, not all hybrids/varieties have been tested for sensitivity to this product. For untested varieties, treat a small amount of the field and determine potential sensitivity to its use. To the extent consistent with applicable law, the user assumes responsibility for such use and any plant injury that may occur.
- Applications of this product may cause temporary yellowing or stunting of the crop.
- Observe resistant management guidelines, especially on tolerant weeds.

- In California and Arizona due to environmental conditions that delay degradation of this product, extend the crop rotation intervals on drip irrigated crops.
- When this product is applied over-the-top of a blooming crop, bloom loss may occur under certain environmental conditions.
- If rainfall or irrigation occurs within 4 hours after application, reduce effectiveness may occur.
- Avoid disturbing (e.g. cultivation) treated areas for at least 7 days following application.

For Best Performance

Many factors such as application rate, weed species, weed pressure, conditions of weeds including size and climatic conditions impact the degree of weed control. Applications made to actively growing weeds at the early stages of development as described below will optimize performance. In post-emergent weed applications, early treatment is best to control the weeds vying (competing) with the crop. For residual control from early post-emergent treatments (in corn) a second application may be needed to control later germination of weeds.

LPI HALOSULFURON is quick to act on targeted weeds by stunting growth allowing the crop to overtake the development of the targeted weeds. Once the development of the targeted weeds is stunted, the leaves and growing point begin to discolor and die. Complete control typically occurs within 7 to 14 days depending on the weed size, species and growing conditions. Depending on the stage and development of the targeted weeds, control generally takes place in 7 to 14 days.

When using spray additives, carefully follow the listed use instructions.

- In pre-emergence applications:
 - If the targeted weeds are present prior to crop emergence, use a nonionic surfactant identified in the “Spray Additives” section of the label.
 - For optimum pre-emergent weed control, activate the soil moisture.
 - Pre-emergent weed control is improved by incorporating this product with irrigations ($\frac{1}{4}$ – $\frac{1}{2}$ inch maximum).
- In post-emergence applications:
 - Better control is obtained when applied early to actively growing, small (1-3 inches in height) broadleaf weeds. Large broadleaf weeds may not be adequately controlled.
 - Nutsedge plants are best controlled at the actively growing, 3 - 5 leaf stage.
 - After a post-emergence application, delay overhead sprinkler irrigation for 2 to 3 days.
 - If weeds are under drought, stress, disease, or insect damage, do not use.
- Under heavy weed infestation, use early before the weeds become too competitive with the crop.
- To control suppressed weeds, large weeds that exceed the size limitations, weeds that emerge after an application, or weed species not listed, cultivate the treated soil 7 – 10 days after a post-emergence application unless specified otherwise.
- Avoid disturbing (e.g. cultivation) treated areas for at least 7 days following application.
- Annual weeds may have multiple flushes of seedlings, or treated perennials may sometimes re-grow from underground stems or roots, depending upon rainfall and other environmental conditions. To maximize control of such weeds, apply a sequential application of this product.

Pre-emergent Weed Activity
Table LPI HALOSULFURON
by Weed Species

Common Name	Scientific Name	Control	Suppression	Directions
Amaranth, Spiny	<i>Amaranth spinosus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹

Common Name	Scientific Name	Control	Suppression	Directions
Cocklebur, common	<i>Xanthium strumarium</i>	YES		
Corn Spurry	<i>Spergula arvensis</i>	YES		
Dayflower	<i>Commelina erecta</i>	YES		
Eclipta	<i>Eclipta prostrate</i>	YES		
Flatsedge, Rice	<i>Cyperus iria</i>		YES	
Galinsoga	<i>Galinsoga</i>	YES		
Goosefoot		YES		
Groundsel, common	<i>Senecio vulgaris</i>	YES		
Horseweed/Marestail	<i>Erigeron canadensis</i>	YES		
Jimsonweed	<i>Datura stramonium</i>	YES		
Kochia	<i>Kochia scoparia</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Ladysthumb	<i>Polygonum persicaria</i>	YES		
Lambsquarter, common	<i>Chenopodium album</i>	YES		
Mustard, wild	<i>Sinapis arvensis</i>	YES		
Nutsedge, Yellow	<i>Cyperus esculentus</i>		YES	Use higher specified rates for suppression
Nutsedge, Purple	<i>Cyperus rotundus</i>		YES	Use higher specified rates for suppression
Pigweed, redroot	<i>Amaranthus retrofractus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Pigweed, smooth	<i>Amaranthus hybridus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Purslane	<i>Portulaca oleracea</i>		YES	
Radish, wild	<i>Raphanus raphanistrum</i>	YES		
Ragweed, common	<i>Ambrosia artemisiifolia</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Shepardspurse	<i>capsella bursapastoris (L.) medicus</i>	YES		
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	YES		
Sunflower	<i>Helianthus annuus</i>	YES		
Velvetleaf	<i>Abutilon theophrasti</i>	YES		

¹ If ALS resistant weeds are present, use another mode of action herbicide registered on the crop against the target weeds alone or as a tank mixture partner.

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

**Post-emergent Weed
Activity Table LPI
HALOSULFURON
by
Weed
Species**

Common Name	Scientific Name	Control	Suppression	Directions
Amaranth, Spiny	<i>Amaranth spinosus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Barnyardgrass	<i>Echinochloa crusgalli</i>	YES		
Bindweed	<i>Calystegia sepium</i>	YES		
Burcucumber	<i>Sicyas angulatus</i>	YES	YES	
California Arrowhead	<i>Sagittaria ontovidensis</i>	YES		1-1½ ounce rate required.
Cocklebur, common	<i>Xanthium strumarium</i>	YES		
Corn Spurry	<i>Spergula arvensis</i>	YES		
Cupgrass, Woolly	<i>Eriochloa villosa</i>	YES		
Dayflower	<i>Commelina erecta</i>		YES	
Dogbane Hemp	<i>Apocynum annabinum</i>		YES	
Eclipta	<i>Ecilpta prostrate</i>		YES	
Flatsedge, Rice	<i>Cyperus iria</i>	YES		
Fleabane, Philadelphia	<i>Erigeron philadelphicus</i>	YES		
Foxtail, giant, yellow, green bristly		YES		
Galinsoga	<i>Galinsoga</i>	YES		
Golden Crownbeard	<i>Verbesina encliodes</i>	YES		
Goosefoot		YES		
Horsenettle	<i>Solanum carolinense</i>	YES		
Horsetail	<i>Equisetum</i>		YES	
Itchgrass	<i>Rottboelliacochinchinensis</i>	YES		
Jointvetch	<i>Aeschynomene</i>	YES		
Johnsongrass rhizome, seedling	<i>Sorghum halepense</i>	YES		
Kochia	<i>Kochia scoparia</i>		YES	Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Ladysthumb	<i>Polygorum persicaria</i>	YES		
Mallow, Venice	<i>Hibiscus trionum</i>	YES		
Milkweed, Common	<i>Asclepias syriaca</i>		YES	
Milkweed, honeyvine	<i>Ampelamus albidus</i>		YES	
Millet, Wild Proso	<i>Paniucum miliaceum</i>	YES		

Common Name	Scientific Name	Control	Suppression	Directions
Morningglory, Ivyleaf	<i>Ipomoea hederacea</i>		YES	Use higher labeled rates for suppression.
Morningglory, Tall	<i>Ipomoea purpurea</i>		YES	Use higher labeled rates for suppression.
Mustard, wild	<i>Sinapis arevensis</i>	YES		
Nightshade, Black	<i>Solanum americanum</i>	YES		
Nutsedge, Yellow	<i>Cyperus esculentus</i>	YES		Heavy infestation requires sequential applications.
Nutsedge, Purple	<i>Cyperus rotundus</i>	YES		Heavy infestation requires sequential applications.
Oats		YES		
Panicum, Fall	<i>Panicum dichotomiflorum</i>	YES		
Panicum, Texas	<i>Panicum texanum</i>	YES		
Passionflower, Maypop	<i>Passiflora incarnata</i>	YES		
Pigweed, redroot	<i>Amaranthus retrofractus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Pigweed, smooth	<i>Amaranthus hybridus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Pokeweed, common	<i>Phytolacca</i>	YES		
Quackgrass	<i>Elytrigia repens</i>	YES		
Radish, wild	<i>Raphanus raphanistrum</i>	YES		
Ragweed, common	<i>Ambrosia artemisiifolia</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Ragweed, giant	<i>Ambrosia trifida</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Redstem	<i>Ammania auriculata</i>	YES		1-1½ ounce rate required.
Ricefield Bulrush	<i>Scirpus mucronatus</i>	YES		Certain biotypes of this weed are known to be resistant to ALS herbicides. ¹
Ryegrass, Italian	<i>Lolium Multiflorum</i>	YES		
Sandbur		YES		
Sesbania, Hemp	<i>Sesbania exaltata</i>	YES		
Shattercane	<i>Sorghum bicolor</i>	YES		

Common Name	Scientific Name	Control	Suppression	Directions
Signalgrass, broadleaf		YES		
Shepardspurse	<i>capsella bursapastoris(L.) medicus</i>		YES	
Sida, prickly		YES		
Smallflower	<i>Umbrellaplant</i>	YES		1-1½ ounce rate required.
Smartweed, Pennsylvania	<i>Polyfonum Pensylvanisum</i>	YES		
Sorghum Almum		YES		
Thistle, Canada	<i>Cirsium arvense</i>	YES		
Sunflower	<i>Helianthus annuus</i>	YES		
Velvetleaf	<i>Abutilan theophrasti</i>	YES		

¹ If ALS resistant weeds are present, use another mode of action herbicide registered on the crop against the target weeds alone or as a tank mixture partner.

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

LPI HALOSULFURON Crop/Use Site Index [Pages to be added to final printed label]

	Page
Alfalfa	xx
Corn:	
Field corn,	xx
Field corn grown for seed,	xx
Sweet corn and popcorn	xx
Cotton	xx
Fallow ground	xx
Fruits:	
Cantaloupes,	xx
Honeydews,	xx
Crenshaw melons,	xx
Watermelons	xx
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Soybeans, seed	xx
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Turfgrasses including turf and sod or turf seed farms	xx
Vegetables:	
Asparagus,	xx
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Cucumbers,	xx
Dry beans,	xx
Fruiting vegetables,	xx
Pumpkins and winter squash,	xx
Succulent snap beans,	xx
Summer squash for processing,	xx
Tomatoes	xx

The use rate for LPI HALOSULFURON is expressed in terms of the oz. of this product by weight per acre as Rate Oz./Acre.

The pre-harvest interval (PHI) is the required days between the last application of LPI HALOSULFURON and the harvesting of the crop.

For the minimum acceptable intervals between the last application of LPI HALOSULFURON and the planting of a rotational crop, see the Crop Rotation Guideline section of this label.

If LPI HALOSULFURON is utilized with a tank mixture partner(s), refer to the specific partner label(s) and observe all the precautionary statements and use directions including pre-harvest intervals, crop rotation restrictions, mixing and application instructions. Observe the most restrictive of the labeling limitations, precautions, directions and restrictions of all products used in mixtures.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
ALFALFA	$\frac{2}{3}$ - 1	14	CA and AZ only. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period. Do not exceed $\frac{3}{4}$ oz. (0.035 lbs. active ingredient) of product per treated acre for Post-emergence Spot Treatment and Sequential Post-emergence Treatment for Nutsedge Control.
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds. For ground equipment, use a minimum of 20 gallons of water per acre.</p> <p>Post-emergence Broadcast: Post-emergent weed control in established alfalfa. For broadcast applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds. Alfalfa must be in the field for a minimum of six months before application of this product. Crop injury is reduced by applying as soon as possible after removal of hay from the field and prior to irrigation. Delay irrigation for a minimum of 48 hours after treatment.</p> <p>Post-emergence Spot Treatment: Use a spot treatment application for localized control of emerged nutsedge. Use sufficient water volume to allow for uniform coverage of the weeds.</p> <p>Sequential Post-emergence Treatments for Nutsedge Control: To maximize the control of nutsedge, a second post-emergent spot spray is applied to the areas where nutsedge has regrown or emerged. In this case, use a spot treatment application for localized control of emerged nutsedge. Use sufficient water volume to allow for uniform coverage of the weeds. This sequential treatment has the greater potential for growth and yield reduction.</p> <p>Data indicates that after application of this product, alfalfa growth and yields will be reduced for one or more cuttings. Where re-growth exceeds 6 inches, a greater yield reduction occurs. Symptoms may be temporary. Follow all directions carefully to minimize potential reduced plant growth and yield.</p>			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
ASPARAGUS	½ - 1½	1	Do not make more than 2 applications per crop cycle. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period. Do not use NIS west of the Rocky Mountains.

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds. For ground equipment, use a minimum of 15 gallons of water per acre.

For use in nursery, transplanted crowns and established beds.

Post-emergence Post-transplant:

Apply this product to asparagus before or during the harvesting season. For first year transplants, apply no sooner than six weeks after fern emergence. This product applied during this time period may increase the potential for crop injury. The addition of adjuvants or tank mixture partners may accentuate the potential crop injury. Use NIS east of the Rocky Mountains to improve weed control.

Post-harvest:

Apply this product at the end of the harvest season. Under heavy nutsedge pressure, use sequential applications. Avoid contact with the fern which may cause temporary yellowing. Use a nonionic surfactant or crop oil concentrate in this time period. Use drop nozzles to direct the spray below the fern to allow for more complete coverage of target weeds for better control of nutsedge and other broadleaf weeds while minimizing crop injury.

To enhance the control of nutsedge, use sequential applications during the cutting/harvest season, when the first flush of nutsedge appears in the 3-5 leaf stage, apply ¾ to 1 oz. product per acre. Make a sequential application by applying ¾ to 1 oz. of this product per acre at least 21-30 days later and up to lay-by to control later flushes of nutsedge. Apply this product post-harvest during the fern stage. Avoid contact with the fern which may cause temporary yellowing. Use drop nozzles to direct the spray below the fern to allow for more complete coverage of target weeds for better control of nutsedge while minimizing crop injury.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
CHILE AND BELL PEPPERS	½-1	30	AZ, CA, NM, TX and OK only. Do not make more than 2 applications per crop cycle. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middles/furrows). Not all pepper varieties have been tested.

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 20 gallons of water per acre.

Direct-seeded:

Post-emergence – Apply as a directed spray 28 days after planting, or when the plants have reached a minimum of six inches in height, but prior to flowering. For lighter textured soils with low organic matter, use the lower rate.

Transplanted:

Post-transplant – Apply as a directed spray 21 days after transplanting, or when the plants have reached a minimum of six inches in height, but prior to flowering.

Direct-seeded and Transplant:

Row Middle/Furrow Applications – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of this product with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
COTTON (except CA)	$\frac{2}{3}$ - $1\frac{1}{3}$	28	Do not apply more than $1\frac{1}{3}$ oz. (0.062 lb. active ingredient) of this product per acre per crop cycle, not to exceed $1\frac{1}{3}$ oz. (0.062 lb. active ingredient) per acre per 12-month period.
<p>For post-emergent weed control in emerged cotton, apply this product as a directed spray in hooded equipment. Make application any time after cotton emergence until row closure prohibits the use of hooded spray equipment.</p> <p>Use this product any time after cotton emergence until row closure inhibits use of hooded spray equipment. The applicator is responsible for maintaining proper spray speed and equipment position so spray mist does not contact cotton plants.</p>			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
CUCUMBERS (including pickles), Cantaloupes, Honeydews, Crenshaw Melons	$\frac{1}{2}$ - 1	30 57 57 57	Do not apply more than 2 applications per crop cycle. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middles/furrows).
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 15 gallons of water per acre.</p> <p>Direct-seeded Bare ground: <i>Pre-emergence</i> – Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.</p> <p><i>Post-emergence</i> – Use after the crop has reached at least 3-5 true leaves but before first female flowers appear. Apply this product as an over-the-top application, a directed spray application, or with crop shields to minimize contact of this product with the crop.</p> <p>Direct-seeded Plastic mulch: <i>Pre-seeding</i> – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-plant application under the plastic mulch. After final bed shaping and just prior to the installation of the plastic mulch, apply this product. No sooner than 7 days after the application and the installation of the plastic mulch, plant the seed crops into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate.</p>			

Post-emergence – Use after the crop has at least 3-5 true leaves but before first female flowers appear. Apply as an over-the-top application, a directed spray application, or with crop shields to minimize contact of this product with the crop.

When applications are made over plastic, concentration of this product in the planting hole may occur resulting in additional phytotoxicity. Do not use over-the-top applications on plastic in the Northeastern and Midwestern states.

Transplanted Bare ground:

Pre-transplant – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-plant application under the plastic mulch. No sooner than 7 days after the application and the installation of the plastic mulch, plant the seed crops into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. Treated soil in the transplant hole may result in crop injury.

During the transplant process, take care to limit movement of soil.

Post-transplant – Use this product to transplants that are established and actively growing. Do not apply until plants are actively growing and in the 3-5 true leaf stage or no sooner than 14 days after transplanting unless local conditions demonstrate safety at an earlier interval, but before first female flowers appear. Apply this product as an over-the-top application, a directed spray application, or with crop shields to minimize contact of this product with the crop.

Transplanted Plastic mulch;

Pre-transplant – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-plant application under the plastic mulch. After final bed shaping and just prior to the installation of the plastic mulch, apply this product. No sooner than 7 days after the application and the installation of the plastic mulch, transplant the crop into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. Soil treated with this product in the transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.

Post-transplant – Use this product on transplants that are established and actively growing. Do not apply until plants are established and actively growing in the 3-5 true leaf stage or no sooner than 14 days after transplanting unless local conditions demonstrate safety at an earlier interval, but before first female flowers appear. Apply as an over-the-top application, a directed spray application, or with the crop shields to minimize contact of this product with the crop.

Additional phytotoxicity may occur when applications are made over plastic due to concentration of product in the transplant hole. Do not use over-the-top applications on plastic in the Northeastern and Midwestern states.

Pre-emergence Sequential Treatment for Nutsedge Control - To maximize the control of nutsedge, a post-emergent spot spray is applied to the areas where nutsedge has re-grown or emerged. In this case, use a spot treatment application for localized control of emerged nutsedge. Do not exceed 1 oz. product per treated acre in these areas. Use sufficient water volume to allow for uniform coverage of the weeds. Avoid contact of this product with the planted crop.

Sequential Post-emergence Treatments for Nutsedge Control - To maximize the control of nutsedge, a second post-emergent spot spray is applied to the areas where nutsedge has re-grown or emerged. In this case, use a spot treatment application for localized control of emerged nutsedge. Allow a minimum of 21 days between applications. Do not exceed 1 oz. product per treated acre in these areas. Use sufficient water volume to allow for uniform coverage of the weeds. Avoid contact of this product with the planted crop.

Direct-seeded and Transplant:

Row Middle/Furrow Applications – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of this product with the planted crop. If plastic

is used on the planted rows, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
OTHER COMMODITIES IN THE CUCURBIT VEGETABLES GROUP	½ - 1	See Text	Including summer squash, gourd, watermelon (See text for PHI). Do not apply within 30 days of harvest for the squash/cucumber subgroup. Do not apply within 57 days of harvest for the melon subgroup. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period.

Direct-seeded and Transplant:

Row Middle/Furrow Applications – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of this product with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
DRY BEANS	½ - 1	30	Do not apply more than 1 oz. (0.047 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to Row Middles/Furrows).

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 15 gallons of water per acre.

Direct-Seeded Pre-emergence:

Use Rate: ½ - ⅔ oz.

Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.

Row Middle/Furrow Applications:

Use Rate: ½- 1 oz.

Apply this product between rows of crop for the control of nutsedge and labeled broadleaf weeds. Avoid contact of this product with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Tank Mixture Partner

A tank mixture of LPI HALOSULFURON partnered with Eptam® 7-E will provide a broader spectrum of weed control than either product used separately.

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

Use LPI HALOSULFURON at a rate of $\frac{1}{2}$ - $\frac{2}{3}$ oz. with labeled rate of Eptam® 7-E and incorporate into the soil at a depth of approximately 2 inches before planting. If any crust appears on the soil, break it up by lightly rotary hoeing during or shortly after the emergence of the beans.

For lighter textured soils with low organic matter, use the lower rate.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
FALLOW GROUND	$\frac{2}{3}$ - $1\frac{1}{3}$		Do not make more than 2 applications per use season. Do not apply more than $2\frac{2}{3}$ oz. of this product (0.125 lb. active ingredient) per acre per use season.
Apply this product as a broadcast spray to fallow ground. For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil.			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
FIELD CORN AND FIELD CORN GROWN FOR SEED	$\frac{2}{3}$ - $1\frac{1}{3}$	30	Do not make more than 2 applications per crop use season. Do not apply more than $2\frac{2}{3}$ oz. of this product (0.125 lb. active ingredient) per acre per use season. After application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.

If used alone, apply a broadcast spray over-the-top or with drop nozzles from the spike through lay-by stage of field corn. For large corn or dense competing canopy, use drop nozzles.

Avoid spraying an excessive amount directly over the rows and into the whorl of the corn stalk.

Corn Weed Height Activity Table

Weed Activity	Control		Suppression	
Rate of Product	$\frac{2}{3}$ oz.	1 - $1\frac{1}{3}$ oz.	$\frac{2}{3}$ oz.	1 - $1\frac{1}{3}$ oz.
Weed Height	Inches	Inches	Inches	Inches
Burcucumber			1 - 3	4 - 12
Cocklebur, common	1 - 9	9 - 14		
Fleabane, Philadelphia	1 - 3			
Kochia ¹	1 - 3			3 - 6
Lambsquarter, common			1 - 2	
Mallow, Venice	1 - 3	4 - 12		
Milkweed, common			3 - 5	6 - 12
Milkweed, honeyvine		1 - 6	1 - 3	
Morningglory				1 - 3
Mustard, wild		4 - 6		
Nutsedge: yellow ²	3 - 6	3 - 12		

purple	3 - 6	3 - 12		
Passionflower, maypop	1 - 3			
Pigweed, redroot ^{1,3}	1 - 3	4 - 6		
Pokeweed, common	1 - 6			
Radish, wild		4 - 6		
Ragweed: common ¹	1 - 9	9 - 12		
Giant ¹	1 - 3	4 - 6		
Smartweed, Pennsylvania	1 - 2			
Sunflower, common	1 - 12	12 - 15		
Velvetleaf ³	1 - 9	9 - 12		
¹ See Pre-emergent and Post-emergent Weed Activity Tables ² Heavy infestations of nutsedge require sequential applications. To prevent nutsedge from competing with the crop an earlier application is required. ³ For large velvetleaf and pigweed control apply with liquid nitrogen fertilizer (2 to 4 quarts per acre) plus crop oil concentrate or nonionic surfactant is suggested.				
Tank Mixture Partners It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.				
2,4-D	See tank mixture partner label for its rates. NIS Apply broadcast spray on corn up to 8 inches tall. If corn exceeds 8 inches, use directed spray with drop nozzles. Broadleaf weeds. Avoid sprays onto corn leaves just after unfolding, as injury may occur. Apply during the period from corn emergence through the 5 leaf stage or 8 inches tall, whichever comes first.			
Accent® Herbicide	See tank mixture partner label for its rates. COC or NIS or ammonium nitrogen fertilizer (e.g. 28%). Apply broadcast spray or with drop nozzles on emerged corn up to 24 inches tall. (free standing) For corn 24 to 36 inches tall, use directed spray with drop nozzles. Annual broadleaf weeds and annual grasses. Avoid sprays directly into the whorls of large cornstalks. Refer to Accent® label for use restrictions on corn varieties.			
Accent Gold® Herbicide	See tank mixture partner label for its rates. COC or ammonium nitrogen fertilizer (e.g. 28%). Apply broadcast spray on corn up to 12 inches tall. Annual broadleaf weeds and annual grasses. Do not apply to seed corn.			
Atrazine 4L Herbicide	See tank mixture partner label for its rates. COC Apply broadcast spray on corn up to 12 inches tall. Apply when broadleaf weeds are small (3 inches or less). Post-emergence control of labeled broadleaf weeds. Aids in the burndown and control of many grass weeds (1.5 inches or less) which have escaped pre-emergence herbicide treatments. Atrazine mixtures may result in reduced control (antagonism) of larger broadleaf weeds. Smaller weeds are easier to control.			
Atrazine 90DF	See tank mixture partner label			

Herbicide	<p>for its rates. COC</p> <p>Apply broadcast spray on corn up to 12 inches tall. Apply when broadleaf weeds are small (3 inches or less). Post-emergence control of labeled broadleaf weeds.</p> <p>Aids in the burndown and control of many grass weeds (1.5 inches or less) which have escaped pre- emergence herbicide treatments.</p> <p>Atrazine mixtures may result in reduced control (antagonism) of larger broadleaf weeds. Small weeds are easier to control.</p>
Banvel® Herbicide or Clarity® Herbicide (dicamba)	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray on corn from emergence up to 36 inches tall. Use lower Banvel rates or directed sprays on corn taller than 8 inches.</p> <p>Broadleaf weeds.</p> <p>Avoid direct sprays into the whorls of large cornstalks.</p> <p>Do not make applications after corn exceeds 36 inches or 15 days before tassel emergence, whichever comes first.</p> <p>COC may cause crop injury, especially with higher Banvel® or Clarity® rates.</p>
Basis® Gold Herbicide	<p>See tank mixture partner label for its rates.</p> <p>COC or NIS or ammonium nitrogen fertilizer (e.g. 28 %). Apply broadcast spray on corn up to 12 inches tall.</p> <p>Broader spectrum.</p> <p>Do not apply to seed corn.</p>
Beacon® Herbicide	<p>See tank mixture partner label for its rates.</p> <p>COC or NIS or ammonium nitrogen fertilizer (e.g. 28 %).</p> <p>Apply broadcast spray or with drop nozzles on corn from 4 - 20 inches tall. For corn 20 – 36 inches tall to pre-tassel, use drop nozzles.</p> <p>Broader spectrum.</p> <p>Avoid spraying directly into whorls of larger corn.</p> <p>See your dealer or seed supplier representative for a list of susceptible hybrids.</p>
Buctril® Herbicide	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray on corn up to tassel emergence. For post-emergence control of annual broadleaf weeds. Leaf burn may occur.</p> <p>Use of COC or ammonium nitrogen fertilizer (e.g. 28%) may cause additional leaf burn.</p>
Buctril® Herbicide plus Atrazine	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray on corn up to 12 inches tall.</p> <p>For post-emergence control of annual broadleaf weeds. Leaf burn may occur.</p> <p>Use of COC or ammonium nitrogen fertilizer (e.g. 28%) may cause additional leaf burn.</p>
Callisto® 4L Herbicide	<p>See tank mixture partner label for its rates.</p> <p>COC or ammonium nitrogen fertilizer (e.g. 28 %).</p> <p>Apply broadcast spray or with drop nozzles on seed or field corn up to 30 inches tall or 8 leaf collars, whichever is more restrictive.</p> <p>Broader spectrum.</p>
Distinct® Herbicide	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray or with drop nozzles on corn 4 - 36 inches tall, e.g. V₂ to V₁₀ stage or 15 days prior to tassel emergence, whichever comes first.</p>

	<p>For corn taller than 20 inches, use drop nozzles. Broader spectrum.</p> <p>Avoid sprays directly into the whorls of large cornstalks.</p> <p>Do not use COC.</p>
Glyphosate (various formulations)	<p>See tank mixture partner label for its rates. .</p> <p>NIS or spray grade ammonium sulfate at 17 lb. /100 gal.</p> <p>Apply broadcast spray or with drop nozzles on Glyphosate Tolerant (GT) field corn up to 30 inches tall or 8 leaf collars, whichever is more restrictive.</p> <p>For GT field corn between 24 – 36 inches, use drop nozzles. For corn taller than 20 inches, use drop nozzles.</p> <p>For burndown of emerged annual grasses, broadleaf weeds and nutsedge. Check product formulation label for specific restrictions.</p> <p>For use ONLY on corn hybrids tolerant to glyphosate herbicide.</p>
Glyphosate (various formulations)	<p>Use LPI HALOSULFURON at ⅓ oz. For glyphosate, see product formulation label.</p> <p>NIS</p> <p>Apply broadcast spray.</p> <p>For pre-plant burndown of emerged annual grasses, broadleaf weeds and nutsedge. To improve burndown of broadleaf weed control use dicamba or 2,4-D.</p> <p>Use only on Pioneer IR corn hybrids.</p>
Impact® 2.8L Herbicide	<p>See tank mixture partner label for its rates.</p> <p>NIS (preferred) or COC or ammonium nitrogen fertilizer (e.g. 28%).</p> <p>Apply broadcast spray or with drop nozzles on seed or field corn up to 36 inches tall.</p> <p>For a density canopy, drop nozzles are preferred.</p> <p>Broader spectrum.</p>
Liberty® 1.67L Herbicide	<p>See tank mixture partner label for its rates.</p> <p>Spray grade ammonium sulfate (17 lbs./100 gallons of spray mix).</p> <p>Apply broadcast spray or with drop nozzles on field corn up to 24 inches tall or 7 leaf collars whichever is more restrictive.</p> <p>For field corn taller than 24 inches up to 36 inches tall, use drop nozzles. Broadleaf weeds and annual grasses.</p> <p>Do not add NIS or COC.</p> <p>For use ONLY on corn hybrids tolerant to Liberty® Herbicide.</p>
Marksman® Herbicide	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray on corn up to 8 inches tall. Broader spectrum.</p> <p>COC may cause crop injury.</p>
Option® 35WDG Corn Herbicide	<p>See tank mixture partner label for its rates.</p> <p>COC or ammonium nitrogen fertilizer (e.g. 28%) or spray grade ammonium sulfate (17 lb. /100 gal.). Apply broadcast spray or with drop nozzles on field corn 4 – 16 inches tall e.g. V₂ to V₆.</p> <p>For field corn taller than 16 up to 36 inches e.g. V₆ to V₁₀, use drop nozzles. Broader spectrum.</p> <p>Do not apply Option® to seed corn.</p> <p>Avoid spraying directly into the whorls of large cornstalks.</p>
Status® Herbicide	<p>See tank mixture partner label for its rates. NIS</p> <p>Apply broadcast spray or with drop nozzles on corn up to 20 inches tall. For corn taller than 20 inches use drop nozzles.</p> <p>Broad</p> <p>er</p>

	<p>spectrum. Do not use COC.</p>
Steadfast® 75DF Herbicide	<p>See tank mixture partner label for its rates. . COC (preferred) or NIS or ammonium nitrogen fertilizer (e.g. 28%) or spray grade ammonium sulfate (17 lbs. /100 gal.). Apply broadcast spray or with drop nozzles on field corn up to 20 inches tall or 6 leaf collars whichever is more restrictive. Broader spectrum. Avoid spraying directly into the whorls of large cornstalks. Do not apply to seed corn.</p>
Soil Residual Tank Mix Partners	<p>Use LPI HALOSULFURON at ⅓ oz. See tank mixture partner label for its rates. Micro-Tech® or Bullet® or Harness® Xtra or Harness® Xtra 5.6L or Degree® or Degree Xtra®. NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100 gallons of spray). Apply as broadcast spray in 15 – 30 gallons of spray/acre to emerged grasses at the 2 leaf stage or less and on corn less than 11 inches tall (5 inches tall for Micro-Tech® and Bullet®). For early post-emergence control of additional small broadleaf, nutsedge and emerged grasses and pre-emergence control or reduced competition of annual broadleaf weeds and grasses as listed on the partner product label. To control emerged lambsquarter less than 4 inches tall, use Banvel® or Clarity® [dicamba].</p> <p>Use LPI HALOSULFURON at ⅓ oz. and Accent®. See tank mixture partner label for its rates. Micro-Tech® or Bullet® or Harness® Xtra or Harness® Xtra 5.6L or Degree® or Degree Xtra®. NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100 gallons of spray). Apply as broadcast spray in 15 – 30 gallons of spray/acre to emerged grasses at the 2 leaf stage or less, foxtail less than 2 inches tall and on corn less than 11 inches tall (5 inches tall for Micro-Tech® and Bullet®). For early post-emergence control of additional small broadleaf and emerged grasses, including foxtail and pre-emergence control or reduced competition of annual broadleaf weeds and grasses as listed on the partner product label. To control emerged lambsquarter less than 4 inches tall, use Banvel® or Clarity® [dicamba].</p> <p>Use LPI HALOSULFURON plus Accent®, Beacon®, Option® or Steadfast®. See tank mixture partner label for its rates. Alachlor, acetochlor, metolachlor and dimethenamid. NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100 gallons of spray). Apply as broadcast spray in 15 – 30 gallons of spray/acre to emerged foxtails and other grasses. For early post-emergence and residual control of emerged foxtails and other grass weeds in seed and field corn. Provides residual control or reduced competition of annual grasses and certain broadleaf weeds as listed on the specific herbicide labels. Follow all directions and restrictions on maximum corn height for post applications on this label and the tank mix partner's label. Use the more restrictive guidelines.</p>
Pioneer IR Field Corn Hybrids	<p>Use LPI HALOSULFURON at 1⅓ - 2 oz. Apply broadcast spray to soil. For residual control of velvetleaf, common cocklebur, common lambsquarter, common ragweed, pigweed, smartweed, sunflower and other difficult to control weeds. Use only on Pioneer IR corn hybrids.</p>

Pre-plant, Pre-emergent.	<p>Use LPI HALOSULFURON plus Accent[®], Beacon[®], Option[®] or Steadfast[®]. See tank mixture partner label for its rates.</p> <p>Such as Harness[®], Harness[®] Xtra, Harness[®] Xtra 5.6L, Degree[®], Degree Xtra[®], Micro-Tech[®], Bullet[®], Lasso[®], alachlor, acetochlor, metolachlor and dimethenamid.</p> <p>NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100 gallons of spray). Apply as broadcast spray in 15 – 30 gallons of spray/acre.</p> <p>Apply as an early pre-plant surface-applied, pre-plant incorporated or pre-emergence treatment.</p> <p>For effective broadleaf control in tank partner combinations with pre-emergence grass herbicides across all tillage systems.</p> <p>Follow all directions and restrictions on this label and the tank mix partner's label. Use the more restrictive guidelines.</p>
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Crop	Rate Oz./Acre	PHI	LIMITATIONS
FRUITING VEGETABLES GROUP	½ - 1	30	<p>Including eggplant, peppers, tomatoes.</p> <p>Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period.</p>

Direct-Seeded and Transplant:

Row Middle/Furrow Applications – Avoid contact of this product with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
Grain Sorghum (Milo)	⅔ - 1	30	<p>Do not make more than 1 application per use season.</p> <p>Do not apply more than 1 oz. of this product (0.047 lb. active ingredient) per acre per use season. Following application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.</p>

If used alone, apply at the 2-leaf through lay-by stage of grain sorghum (before the grain head emerges). If grain sorghum is under stress, temporary stature reduction occurs to the crop following application of this product. After application this effect will be evident in 7 – 10 days but under normally growing conditions will quickly recover.

Sorghum Weed Height Activity Table			
Weed Activity	Control		Suppression
Rate of Product	$\frac{2}{3}$ oz.	1 oz.	$\frac{2}{3}$ oz.
Weed Height	Inches	Inches	Inches
Burcucumber			1 - 3
Cocklebur, common	1 - 9		
Fleabane, Philadelphia	1 - 3		
Kochia ¹	1 - 3		
Lambsquarter, common			1 - 2
Mallow, Venice	1 - 3		
Milkweed, common			3 - 5
Milkweed, honeyvine			1 - 3
Nutsedge: yellow ²	3 - 6	3 - 12	
purple	3 - 6	3 - 12	
Passionflower, maypop	1 - 3		
Pigweed, redroot	1 - 3		
Pokeweed, common	1 - 6		
Ragweed: common	1 - 9		
Giant	1 - 3		
Smartweed, Pennsylvania	1 - 2		
Sunflower, common	1 - 12		
Velvetleaf	1 - 9		

¹ See Pre-emergent and Post-emergent Weed Activity Tables.

² Heavy infestations of nutsedge require sequential applications. To prevent nutsedge from competing with the crop an earlier application is required.

Tank Mixture Partners

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use.

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

2,4-D	See tank mixture partner label for its rates. NIS Apply broadcast spray on sorghum 6 to 15 inches tall. If sorghum exceeds 8 inches, use directed spray with drop nozzles and avoid spray on foliage. Broadleaf weeds. Do not treat during the boot, flower or dough stage. Do not make applications when sorghum exceeds 15 inches.
Atrazine 4L Herbicide	See tank mixture partner label for its rates. COC Apply broadcast spray on sorghum up to 12 inches tall. Apply when broadleaf weeds are small (3 inches or less). Post-emergence control of labeled broadleaf weeds. Aids in the burndown and control of many grass weeds (1.5 inches or less) which have escaped pre-emergence herbicide treatments. Atrazine mixtures may result in reduced control (antagonism) of larger broadleaf weeds. Smaller weeds are easier to control.
Buctril® Herbicide	See tank mixture partner label for its rates. NIS Apply broadcast spray on sorghum. For post-emergence control of annual broadleaf weeds.

Buctril® Herbicide plus Atrazine	See tank mixture partner label for its rates. NIS Apply broadcast spray on sorghum. For post-emergence control of annual broadleaf weeds.
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Crop	Rate Oz./Acre	PHI	RESTRICTIONS
PUMPKINS AND WINTER SQUASH	½ - 1	30	Do not make more than 2 applications per crop cycle. Do not apply more than 1 oz. (0.047 lbs. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middles). Where possible, apply ½ to ¾ inch of sprinkler irrigation to settle the soil after planting and prior to application.

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 15 gallons of water per acre.

Direct-seeded:

Use Rate: ½ - ¾ oz.

Pre-emergence – Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.

Post-emergence – Apply after the crop has reached at least 2-5 true leaf stage, preferably 4-5 true leaves, but before first female flowers appear. For lighter textured soils with low organic matter, use the lower rate.

Transplanted:

Use Rate: ½ - ¾ oz.

Pre-transplant – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-transplant application under the plastic mulch. Crop may be transplanted into this treated area no sooner than 7 days after application unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. This product treated in soil in transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.

Post-transplant – Apply this product to transplants that are established and actively growing. Application should not be made until plants are actively growing and in the 3-5 true leaf stage or no sooner than 14 days after transplanting unless local conditions demonstrate safety at an earlier interval, but before first female flowers appear. Apply this product as an over-the-top application, a directed spray application, or with crop shields to minimize contact of the herbicide with the crop.

For Processing Only - Direct-seeded:

Use Rate: ½-1 oz.

Pre-emergence – Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.

Post-emergence – Apply after the crop has reached at least 2-5 true leaf stage, but before first female flowers appear. For lighter textured soils with low organic matter, use the lower rate.

Direct-seeded and Transplant:

Use Rate: ½-1 oz.

Row Middle/Furrow Applications – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of this product with the planted crop. If plastic is used on the planted rows, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
RICE	$\frac{2}{3} - 1 \frac{1}{3}$	48*	<p>Do not make more than 3 applications (including pre-plant and at-planting applications) per year.</p> <p>Do not apply more than 1 ½ oz. of this product (0.062 lb. active ingredient) per acre per use year.</p> <p>After application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.</p> <p>*Do not apply within 69 days of harvest in California. For Direct Dry Applications by air:</p> <p>Do not apply to dry rice fields.</p> <p>Apply aerial applications at a maximum of no greater than ½ the wing span.</p> <p>Do not use a swath width greater than 120 feet.</p> <p>Do not mix this product with any other additives except as directed by this label.</p> <p>Do not apply within 360 feet of sensitive crops.</p> <p>Do not apply when wind speed is less than 3 mph or exceeds 15 mph.</p>

Rice Weed Height Activity Table				
Weed Activity	Control		Suppression	
Rate of Product	$\frac{2}{3}$ oz.	1 - 1 $\frac{1}{3}$ oz.	$\frac{2}{3}$ oz.	1 - 1 $\frac{1}{3}$ oz.
Weed Height	Inches	Inches	Inches	Inches
Burcucumber			1 - 3	4 - 12
California Arrowhead		Yes		
Cocklebur, common	1 - 9	9 - 14		
Dayflower	1 - 2	3 - 4		
Eclipta	1 - 4	4 - 8		
Flatsedge rice	1 - 9	9 - 12		
Fleabane, Philadelphia	1 - 3			
Jointvetch	1 - 2	3 - 4		
Kochia ¹	1 - 3			3 - 6
Lambsquarter, common			1 - 2	
Mallow, Venice	1 - 3	4 - 12		
Milkweed, common			3 - 5	6 - 12
Milkweed, honeyvine		1 - 6	1 - 3	
Morningglory				1 - 3
Mustard, wild		4 - 6		
Nutsedge: yellow ²	1 - 6	6 - 12		
purple	1 - 6	6 - 12		
Passionflower, maypop	1 - 3			
Pigweed, redroot	1 - 3	4 - 6		
Pokeweed, common	1 - 6			
Radish, wild		4 - 6		
Ragweed: common	1 - 9	9 - 12		
Giant	1 - 3	4 - 6		
Redstem	1 - 3	Yes		
Ricefield Bulrush		Yes		
Sesbania Hemp	1 - 3	3 - 6		
Sida, Prickly	1 - 2	3 - 4		
Smallflower		Yes		
Smartweed,	1 - 2			
Sunflower, common	1 - 12	12 - 15		
Velvetleaf ³	1 - 9	9 - 12		

¹ See the Post-emergent Weed Activity Table.

² Heavy infestations of nutsedge require sequential applications. To prevent nutsedge from competing with the crop an earlier application is required.

³ For large velvetleaf and pigweed control, apply with liquid nitrogen fertilizer (2 - 4 qts./acre).

Pre-plant, at-plant, post-emergent and prior to emergence of rice through permanent flood:
Use $\frac{2}{3}$ - 1 $\frac{1}{3}$ oz. of this product per acre per use season.

Apply foliar applications of this product at the 3 - 5 leaf stage of rice when weeds have 2 - 4 leaves. For foliar applications, use nonionic surfactant at rate of 0.25 - 0.5% in the spray mixture.

For aerial foliar applications, use a minimum of 3 - 15 gallons of water per acre. For ground foliar applications, use a minimum of 10 gallon of water per acre.

After mixing, apply spray suspensions the same day for best results.

Precautions:
Best control of emerged weeds with foliar applications occurs when 70% - 80% of the weed foliage

is exposed. For best control of submerged weeds, apply when weeds have 2 leaves or less.

Check spray drift management section of this label.

Following the foliar applications of this product, do not reintroduce water into rice fields or checks for at least 24 hours. To improve the spectrum of weed control, tank mix this product with Shark®.

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

Sequential Applications:

To improve the spectrum of weed control, apply this product sequentially with Bolero®, Clincher®, Regiment® or Shark®.

Direct Dry Application:

Apply this product post flood as a dry broadcast application at a rate of 1 – 1 ½ oz. per acre per use season. When weeds

have 2 leaves or less, apply the dry broadcast treatment of this product at 1 – 2 leaf stage of rice.

Water levels in rice fields and checks should remain static (3 – 6 inch depth) after dry broadcast applications of this product. Do not reintroduce water into rice fields or checks for at least 5 days after dry broadcast treatments. Rice fields and checks may be irrigated to maintain water level, but this may reduce weed control. Co-application with Shark is allowed.

Tank Mixture Partners

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use.

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

Glyphosate (various formulations)	Use LPI HALOSULFURON at ⅔ oz. See Glyphosate label for its rates. NIS Broadcast spray. For pre-plant or at-planting burndown of emerged annual grasses, broadleaf weeds and nutsedge. If applied as a pre-plant burn down treatment, consult the Crop Rotational Guidelines of this product and the Glyphosate label.
Stam® M4 and Propanil 4E (propanil)	Use LPI HALOSULFURON at ⅔ – 1 ½ oz. See propanil labels for its rates. Broader spectrum weed control. If applied as a pre-plant burn down treatment, consult the Crop Rotational Guidelines.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
SOYBEANS, Soybean Seed (Except CA)	⅔ – 1 ½	88	Do not apply more than 1½ oz. of this product (0.062 lbs. active ingredient) per application. Do not make more than 1 application per year. Do not apply more than 1½ oz. of this product (0.062 lb. active ingredient) per acre per year. Do not apply to frozen ground. After application to foliage, allow 30 days before grazing domestic livestock or harvest forage, silage and hay. Do not apply this product if plans include planting Adzuki beans since unacceptable crop injury may occur. Do not use post-emergence applications of this product to straight Roundup Ready or conventional soybean varieties as severe crop injury will occur. Do not use more than ⅔ oz. (0.031 lbs. active

			ingredient) of this product in post-emergence application to sulfonyl-urea tolerant soybeans (STS).
Pre-plant Burndown – Fall Application: Use Rate: ⅔ – 1 ⅓ oz. For control or suppression of listed broadleaf winter annual weeds prior to planting soybeans in the following Spring, apply this product as a fall burndown herbicide and/or preventative application. If listed broadleaf weed are visible, use a high quality crop oil concentrates (1 – 2% vol/vol) and granular AMS (2 – 4 lbs./A) or UAN (1 -2% vol/vol) to the spray suspension to improve performance. Apply this product from anytime from after harvest up until the ground freezes. Apply this product by ground or air. In research trials, no instances of crop injury from Fall applied applications have occurred but not all soybean varieties have been tested for crop tolerance to halosulfuron-methyl. For the latest halosulfuron-methyl tolerance information, consult the local seed agronomists and seed supplier. For broadleaf winter annual weed activity, this product must contact the emerged weeds and reach the soil surface. In reduce tillage systems to maintain the active ingredient in the top layer of soil where weed seeds germinate, apply this product after fall chisel, disking etc.			
Tank Mixture Partners It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.			
2,4-D Amine or LV ester (various formulations)	See tank mixture partner label for its rates. For broader spectrum control in pre-plant burndown of emerged annual broadleaf weeds or under heavy weed infestation.		
Glyphosate (various formulations)	See tank mixture partner label for product rates. For control in pre-plant burn down of emerged grass weeds.		
Pre-emergence or Pre-plant Spring Application to Soybean Varieties Tolerant to Sulfonyl-urea Herbicides (STS) Only: Use Rate: ¾ oz. For contact and residual control or suppression of listed broadleaf winter and early germinating summer annual weeds, apply this product from 21 days before planting until prior to emergence (i.e. cracking). For best performance, apply this product to actively growing weeds free from environmental stress. If listed broadleaf weed are visible, use a high quality crop oil concentrates (1 % vol/vol) and granular AMS (2 – 4 lbs./A) or UAN (1 -2% vol/vol) to the spray suspension to improve performance. For use on any soybean varieties tolerant to sulfonyl-urea herbicides (STS) unless prohibited by the seed supplier. In research trials, no instances of crop injury from Spring pre-plant or pre-emergence applied applications have occurred but not all sulfonyl-urea tolerant soybean (STS) varieties have been tested for crop tolerant to halosulfuron-methyl. For the latest halosulfuron-methyl tolerance information, consult the local seed agronomists and seed supplier. In reduce tillage systems to maintain the active ingredient in the top layer of soil where weed seeds germinate, apply this product after all tillage operations.			
Tank Mixture Partners It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the			

intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.	
2,4-D LV ester (various formulations)	See tank mixture partner label for its rates. For control in early germinating
Glyphosate (various formulations)	summer weeds. See tank mixture partner label for product rates. For broader spectrum control in pre-plant burndown of emerged annual broadleaf weeds or grasses.
<p>Post-emergence Application to Soybean Varieties Tolerant to Sulfonyl-urea Herbicides (STS) Only: Use Rate: $\frac{2}{3}$ oz. For contact and residual control of listed broadleaf weeds and nutsedge, apply this product post-emergent from V1 through R2 stages of sulfonyl-urea tolerant soybean (STS) varieties only.</p> <p>If the tolerant soybean variety is also stacked with glyphosate or glufosinate tolerant trait, then glyphosate or glufosinate respectively may be used as a tank mixture partner.</p> <p>For best performance, apply this product to actively growing weeds free from environmental stress.</p> <p>For use on any soybean varieties tolerant to sulfonyl-urea herbicides (STS) unless prohibited by the seed supplier.</p> <p>Always use a NIS(1 to 2 qts./100 gallons of spray) or high quality crop oil concentrates (1 % vol/vol) and granular AMS (2 – 4 lbs./A) or UAN (1 -2% vol/vol) to the spray suspension to improve performance.</p> <p>Some phytotoxicity from post-emergent applications may occur on susceptible sulfonyl-urea tolerant soybeans (STS) varieties. These symptoms may include stunting (seen as reduction in leaf size or internodal length), yellowing of leaves and or red veins and necrosis of leaves and petioles. Sulfonyl-urea tolerant soybeans (STS) that have exhibit these symptoms tend to recover after the product is metabolized by the plant. Soybean injury is most noticeable when the plants are under environmental stress conditions such as hot, humid conditions, or wide fluctuations in climatic conditions, drought, etc.</p> <p>For the latest halosulfuron-methyl tolerance information, consult the local seed agronomists and seed supplier.</p>	
<p>Tank Mixture Partners It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.</p>	
Glyphosate (various formulations)	See tank mixture partner label for product rates. For broader spectrum control of emerged annual broadleaf and grass weeds or under heavy weed infestation.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
SUCCULENT SNAP BEANS (Including lima beans)	$\frac{1}{2}$ - 1	30	Do not apply more than 1 oz. (0.047 lbs. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middles/furrows).

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
			Application of this product may cause significant, temporary stunting and delay maturity of snap beans resulting in delayed harvest. This product is available to the end-user/grower solely to the extent that the benefit and utility, in the sole opinion of the end-user/grower, outweigh the extent of potential injury associated with the use of this product. To the extent consistent with applicable law, the risk of crop damage, is at the end- user/grower's risk.
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 15 gallons of water per acre.</p> <p>Direct-seeded: Use Rate: ½-1 oz. <i>Pre-emergence</i> – Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.</p> <p><i>Row Middle/Furrow Applications</i> – Apply this product for the control of nutsedge and listed broadleaf weeds. Avoid contact of this product with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.</p> <p>Direct-seeded: Use Rate: ½-2/3 oz. <i>Post-emergence</i> – Apply after the crop has reached the 2-4 trifoliate leaf stage, but before flowering. For lighter textured soils with low organic matter, use the lower rate. Use directed sprays to limit crop injury.</p>			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS	
SUGARCANE	⅔ – 1 ⅓	30	Do not make more than 3 applications (including pre-plant applications) per year. Do not apply more than 2 ⅔ oz. of this product (0.125 lb. active ingredient) per acre per year. After application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage.	
If used alone, apply this product prior to planting, prior to emergence or after the emergence of the sugarcane and until row closure. Use mechanical cultivation to control weed species not on this label. If mechanical cultivation is used, apply a sequential treatment to control weeds in areas of disturbed soil.				
Sugarcane Weed Height Activity Table				
Weed Activity	Control		Suppression	
Rate of Product	⅔ oz.	1 - 1⅓ oz.	⅔ oz.	1 - 1⅓ oz.
Weed Height	Inches	Inches	Inches	Inches
Burcucumber			1 - 3	4 - 12
Cocklebur, common	1 - 9	9 – 14		

Fleabane, Philadelphia	1 - 3			
Kochia ¹	1 - 3			3 - 6
Lambsquarter, common			1 - 2	
Mallow, Venice	1 - 3	4 - 12		
Milkweed, common			3 - 5	6 - 12
Milkweed, honeyvine		1 - 6	1 - 3	
Morningglory				1 - 3
Mustard, wild		4 - 6		
Nutsedge: yellow ²	3 - 6	3 - 12		
purple	3 - 6	3 - 12		
Passionflower, maypop	1 - 3			
Pigweed, redroot ³	1 - 3	4 - 6		
Pokeweed, common	1 - 6			
Radish, wild		4 - 6		
Ragweed: common	1 - 9	9 - 12		
Giant	1 - 3	4 - 6		
Smartweed, Pennsylvania	1 - 2			
Sunflower, common	1 - 12	12 - 15		
Velvetleaf ³	1 - 9	9 - 12		

¹ See Pre-emergent and Post-emergent Weed Activity Tables.

² Heavy infestations of nutsedge require sequential applications. To prevent nutsedge from competing with the crop an earlier application is required.

³ For large velvetleaf and pigweed control, apply with liquid nitrogen fertilizer (2 – 4 qts. /acre) plus NIS or COC.

Tank Mixture Partners

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

2,4-D amine	See tank mixture partner label for its rates. NIS Apply to sugarcane before crop emergence or post-emergence until 6 weeks before harvest. Broadleaf weeds. Do not make more than 3 applications per year.
Asulam Herbicide	See tank mixture partner label for its rates. NIS or COC Apply to sugarcane before crop emergence or post-emergence until 90 days before harvest. Broader spectrum. Do not make more than two applications per year.
Atrazine 4L Herbicide	See tank mixture partner label for its rates. NIS or COC Apply broadcast spray on sugarcane. Apply when broadleaf weeds are small (1.5 inches or less). Post-emergence control of labeled broadleaf weeds. Aids in the burndown and control of many grass weeds which have escaped pre-emergence herbicide treatments. Atrazine mixtures may result in reduced control (antagonism) of larger broadleaf weeds. Smaller weeds are easier to control.

Ametryn Herbicide	See tank mixture partner label for its rates. NIS Apply broadcast spray on sugarcane before crop emergence or post-emergence until row closure. Broadleaf weeds and grasses. Reduced efficacy occurs if temperatures exceed 85°F during application.
Glyphosate (various formulations)	See tank mixture partner label for its rates. NIS Apply as broadcast spray. For pre-plant burndown of emerged annual grasses, broadleaf weeds and nutsedge.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
SUMMER SQUASH FOR PROCESSING	$\frac{1}{2}$ - 1	30	AR, OK and MO only. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to Row Middles/Furrows).
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 15 gallons of water per acre.</p> <p>Direct-seeded: Use Rate: $\frac{2}{3}$ - 1 oz. <i>Pre-emergence</i> – Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.</p> <p>Direct-seeded and Transplant: Use Rate: $\frac{1}{2}$-1 oz. <i>Row Middle/Furrow Applications</i> – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area. Avoid contact of this product with the planted crop.</p>			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
Sweet Corn and Popcorn	$\frac{2}{3}$	30	Do not apply more than $\frac{2}{3}$ oz. of this product (0.031 lbs. active ingredient) per application. Do not make more than 2 applications per crop year. Do not exceed with a total application of $1\frac{1}{3}$ oz. of product (0.062 lb. active ingredient) per acre per use season. After application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage. Do not use on “Jubilee” sweet corn. Do not apply this product to sweet corn or popcorn previously treated with soil applied organophosphate insecticides.

			<p>Do not apply an organophosphate insecticide within 7 days before or 3 days after any application of this product.</p> <p>Do not apply this product to sweet corn or popcorn unless the seed company, processor or State Agricultural Extension service has tested this product on the particular hybrid or variety and specifically approves and supports the use.</p> <p>Do not apply this product if the sweet corn and popcorn is under severe stress due to drought, water-saturated soils, low fertility (especially low nitrogen levels) or other poor growing conditions.</p>
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Spray Applications

If used alone, apply a broadcast spray over-the-top or with drop nozzles from the spike through lay-by stage of corn. Use mechanical cultivation to control weeds species not on this label.

Apply a sequential treatment, if necessary, only with drop nozzles semi-directed or directed to avoid application into the corn plant whorl.

Precautions:

Not all sweet corn and popcorn hybrids or varieties have been tested for sensitivity to this product. To the extent consistent with applicable law, the user assumes all responsibility for such use.

After application, avoid cultivation for at least 7 days.

Sweet Corn and Popcorn Weed Height Activity Table

Weed Activity	Control	Suppression
Rate of Product	$\frac{2}{3}$ oz.	$\frac{2}{3}$ oz.
Weed Height	Inches	Inches
Burcucumber		1 - 3
Cocklebur, common	1 - 9	
Fleabane, Philadelphia	1 - 3	
Kochia ¹	1 - 3	
Lambsquarter, common		1 - 2
Mallow, Venice	1 - 3	
Milkweed, common		3 - 5
Milkweed, honeyvine		1 - 3
Nutsedge: yellow ²	3 - 6	
purple	3 - 6	
Passionflower, maypop	1 - 3	
Pigweed, redroot	1 - 3	
Pokeweed, common	1 - 6	
Ragweed: common	1 - 9	
Giant	1 - 3	
Smartweed, Pennsylvania	1 - 2	
Sunflower, common	1 - 12	
Velvetleaf	1 - 9	

¹ See Pre-emergent and Post-emergent Weed Activity Tables.

² Heavy infestations of nutsedge require sequential applications. To prevent nutsedge from competing with the crop an earlier application is required.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
TOMATOES	$\frac{1}{2}$ - 1	30	

			<p>Do not make more than 2 applications per crop cycle. Do not apply more than 2 oz. (0.094 lb. active ingredient) of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middles/furrows).</p>
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 20 gallons of water per acre.</p> <p>Direct-seeded: <i>Post-emergence</i> – Apply this product over-the-top once tomatoes have reached the 4-leaf stage through first bloom. After bloom, applications must be made as a directed spray or with crop shields to minimize contact of this product with the crop.</p> <p>Transplanted: <i>Pre-transplant on Bareground</i> – Apply this product as a pre-transplant application to bareground for the suppression of nutsedge and control of listed broadleaf weeds. Seven (7) days after the application, transplant tomatoes into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. This product treated in soil in transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.</p> <p><i>Pre-transplant under Plastic Mulch Applications</i> – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-plant application under the plastic mulch. After final bed shaping and just prior to the installation of the plastic mulch, apply this product. Seven (7) days after the application and the installation of the plastic mulch, transplant the tomatoes into this treated area unless local conditions demonstrate safety at an earlier interval.</p> <p>Soil treated with this product in the transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.</p> <p><i>Post-transplant</i> – Apply this product to tomato transplants that are established and actively growing. Apply to tomato transplants a minimum of 14 days after transplanting unless local conditions demonstrate safety at an earlier interval but before first bloom. Following bloom, apply this product only as a directed spray or with crop shields to minimize contact of this product with the crop.</p> <p>Direct-seeded and Transplant: <i>Pre-transplant followed by post-emergence for nutsedge control</i>– To maximize the control of nutsedge, use a sequential post-emergence application to those areas where the nutsedge has broken through the plastic mulch. For these situations, use a spot treatment method treating only those areas of emerged nutsedge. Do not exceed ¾ oz. product per treated acre in these areas. Use a water volume that will allow for good coverage of the plants. Soil treated with this product in the transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.</p> <p><i>Post-emergence Sequential Treatments for Nutsedge Control</i> - To maximize the control of nutsedge, a second sequential post-emergent spray is applied to the areas where nutsedge has re-grown or emerged. In this case, use a spot treatment application for localized control of emerged nutsedge. Allow a minimum of 21 days between applications. Do not exceed 1 oz. product per treated acre in these areas.</p> <p><i>Row Middle/Furrow Applications</i> – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of this product with the planted crop. If plastic is used on the planted rows, adjust equipment to keep the application off the plastic. Adjust the rate and spray volume proportionally to the actual treated area.</p>			

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
TREE NUTS (almonds, beechnuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapins, filberts, hickory nuts, macadamia nuts, pecans, pistachios, walnuts {black and English})	$\frac{2}{3}$ - $1\frac{1}{3}$	1	<p>Do not make more than 2 applications per acre per use season. Do not apply more than $2\frac{2}{3}$ oz. of this product (0.125 lb. active ingredient) per acre per use season.</p> <p>On coarse textured soils classified as sand, loamy sand, and sandy loam with less than 18 % clay and more than 65 % sand, or on soils with less than 1 % organic matter, apply up to 2 applications of this product with a total of all applications not to exceed 2 oz. (0.094 lb. active ingredient) of this product per acre per use season.</p> <p>Do not apply to gravely soils.</p> <p>Do not over apply, since excessive application rates can result in severe tree injury or death.</p> <p>Do not use in controlled droplet application, irrigation, or chemigation equipment due to variations in the actual application rate.</p>
<p>For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. Use this product as a directed spray to the soil in established tree nut crops. Established tree nut crops are defined as those that have been transplanted into their final growing location for a period of at least 12-months, and where the soil has firmly settled around the roots from packing and rainfall or irrigation.</p> <p>Specified rates are based on broadcast treatment. For band applications, adjust the rate and spray volume proportionally to the actual treated area. For all applications, adjust the rate of this product to account for high volume output nozzles, such as off-center nozzles, and overlaps in the spray pattern.</p> <p>Use a maximum of 1 oz. (0.047 lb. active ingredient) of this herbicide per acre on coarse textured soils classified as sand, loamy sand, and sandy loam with less than 18 % clay and more than 65 % sand, or on soils with less than 1 % organic matter.</p> <p>Use mechanical cultivation or mowing to control weed species not listed on this label. If the soil is disturbed, use a sequential spot treatment for continued control.</p> <p>Precautions:</p> <p>Avoid contact of the spray containing this product with trunk, stems, roots, or foliage of tree nut crops, as severe injury or death may result.</p> <p>For the best results, apply this product in the spring when nutsedge is not drought stressed and maximize the interval between application and subsequent irrigation. If this product is applied to trees that have been weakened by or recovering from stress caused by, but not limited to, excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, winter injury, soil pan of any type, nutrient deficiency, or mechanical damage, severe injury or death may result. Application of this product to weakened or stressed trees as described, especially in soils with less than 1 % organic matter, significantly increases the probably of severe injury or death. To the extent consistent with applicable law, all such risks shall</p>			

be assumed by the user.

Tank Mixture Partner:

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

Use this product at labeled rate with Glyphosate agricultural herbicides. This will aid in the burndown and control of emerged annual grasses, broadleaf weeds and nutsedge.

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
TURFGRASSES (established lawns, ornamental turfgrass, landscaped areas, commercial and residential turfgrass), AND OTHER NON-CROP SITES (including airports, cemeteries, fallow non-crop areas, golf courses, landscaped areas, public recreation areas, residential property, roadsides, school grounds, sod or turf seed farms, sports fields, landscaped areas with established woody ornamentals, fairgrounds, race tracks, tennis courts, campgrounds and rights-of-way)	$\frac{2}{3} - 1\frac{1}{3}$		<p>Do not make more than 4 applications per use season. Do not apply more than $5\frac{1}{3}$ oz. of this product (0.25 lb. active ingredient) per acre per use season. Do not apply this product through any type of irrigation system.</p> <p>Do not apply this product by air.</p> <p>Do not use on sod or turf seed farms in OR and WA. In California:</p> <p>Do not make more than 2 applications per use season. Do not apply more than $2\frac{2}{3}$ oz. of this product (0.25 lb. active ingredient) per acre per use season.</p> <p>Do not mow turfgrass for 2 days before or 2 days after application for best results.</p> <p>Do not apply this product to golf course putting greens. Do not exceed the specified amount of spray additive due to the potential for turf injury at higher labeled rates.</p>
<p>Broadcast Treatment:</p> <p>Cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds. Use 0.25 - 0.5% nonionic surfactant (1 - 2 qts. per 100 gallons of spray suspension) for broadcast applications. For high volume applications, do not exceed 1 qt. of spray additive per acre.</p> <p>Spot Applications:</p> <p>Add 2 teaspoons ($\frac{1}{3}$ fl. oz.) of nonionic surfactant per gallon of water. Use only nonionic surfactants which contain at least 80% active material.</p> <p>Refer to the spray additive label and observe all precautions, restrictions, mixing and application instructions.</p>			

**Post-emergent Weed Activity Table
LPI HALOSULFURON
by Weed Species**

Common Name	Scientific Name	Control	Suppression	Comments
	<i>Kyllinga spp.</i>		YES	
Nutsedge, Yellow	<i>Cyperus esculentus</i>	YES		Heavy infestation requires sequential applications.
Nutsedge, Purple	<i>Cyperus rotundus</i>	YES		Heavy infestation requires sequential applications.

[Mixing Instruction for additional packaging options.]

[INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE IN 1.3 OUNCE BOTTLE] Mix 0.03 ounces (0.9 gram) of this product (using the measuring scoop provided) in 1 - 2 gallons of water to treat 1,000 sq. ft. Add 2 teaspoons ($\frac{1}{8}$ fluid ounce) of nonionic surfactant per gallon of water. Measure this product as a level and not a rounded scoop. Mix or shake thoroughly for at least two minutes to completely disperse this product. To ensure that this product remains thoroughly mixed while spraying, occasionally shake the spray suspension.

Turfgrass – Use this product on well established seeded, sodded or sprigged turfgrass for the post-emergent control of nutsedge, e.g. yellow and purple. The turf needs to develop a good root system and uniform stand before application. If needed, overseed treated areas with annual or perennial ryegrass or bermudagrass 2 weeks after application.

Broadcast Treatments - After nutsedge has reached the 3 - 8 leaf stage of growth, apply $\frac{2}{3}$ - 1 $\frac{1}{3}$ oz., of this product per acre. For light infestations use the lower rate and heavy infestations use the higher rate.

Sequential Treatments – To maximize the control of nutsedge, a second post-emergent spot or broadcast spray is applied 6 - 10 weeks after the initial treatment to the areas where nutsedge has re-grown or emerged. After nutsedge has reached the 3 - 8 leaf stage of growth, apply $\frac{2}{3}$ - 1 $\frac{1}{3}$ oz., of this product per acre. For light infestations use the lower rate and heavy infestations use the higher rate. Use a spot treatment application for localized control of newly emerged nutsedge. For spot treatments, mix 0.03 oz. (0.9 gram) of this product in 1 - 2 gallons of water to treat 1,000 sq. ft.

Woody Ornamentals in Landscaped Areas

Use this product as a post-directed spray at the specified use rates around established woody ornamental plants in landscaped areas. If applications are to be made to transplanted woody ornamentals, allow 3 months after transplanting before applying this product.

Fallow Treatments

This product may be used on fallow areas prior to establishing turfgrass plants. Wait 4 weeks between application and seeding or sodding of turfgrass.

Precautions:

This product is effective if no rainfall occurs within 3 hours, but best results are obtained with no rainfall or irrigation for at least 4 hours.

When transplanted into landscaped areas treated with this product, flowers, ornamentals plants and shrubs may be injured. Avoid contact of the spray containing this product to desirable flowers, ornamentals, shrubs or trees as discoloration, severe foliar injury or death may result.

Avoid application of this product when turfgrass or nutsedge is under stress since turf injury and poor nutsedge control may occur.

Turfgrass Renovation

For turfgrass renovations, apply at $\frac{2}{3}$ oz. per acre in combination with glyphosate herbicide formulations

labeled for turfgrass renovation. This is for a non-selective pre-plant burndown of emerged annual grasses, broadleaf weeds and nutsedge.

Wait 4 weeks between application and seeding or sodding of turfgrass.

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

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
ROADSIDES, RIGHTS-OF-WAY, TANK FARMS, LUMBERYARDS, FUEL STORAGE AREAS, FALLOW NON-CROP LAND, AND FENCE ROWS	2 $\frac{2}{3}$		Do not make more than 2 applications per 12-month period. Do not apply more than 5 $\frac{1}{3}$ oz. of this product (0.25 lb. active ingredient) per acre per 12-month period. Do not apply this product through any type of irrigation system. Do not apply this product by air.

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds. Use 0.25 - 0.5% nonionic surfactant (1 - 2 quarts per 100 gallons of spray solution) for broadcast applications.

**Post-emergent Weed
Activity Table LPI
HALOSULFURON
by Weed Species**

Common Name	Scientific Name	Control	Suppression	Comments
Cocklebur, common	<i>Xanthium strumarium</i>		YES	
Horsetail	<i>Equisetum arvense</i>	YES	YES	Control if weeds are less than 6 inches tall. Suppression if weeds are greater than 6 inches tall
Pigweed, redroot	<i>Amaranthus retrofractus</i>		YES	
Pigweed, smooth	<i>Amaranthus hybridus</i>		YES	
Ragweed, common	<i>Ambrosia artemisiifolia</i>		YES	
Ragweed, giant	<i>Ambrosia trifida</i>		YES	
Sunflower	<i>Helianthus annuus</i>		YES	
Velvetleaf	<i>Abutilon theophrasti</i>		YES	

For post-emergence control of horsetail (*Equisetum arvense*), apply 2 $\frac{2}{3}$ oz. of this product per acre or 0.06 oz. (1.8 grams) of this product per 1,000 square feet (0.125 lb. active ingredient per acre) after horsetail has leafed out. Within 14 days after application, signs of herbicide effect will appear as a necrotic ring at the base of the plant, even though the leaves and stems remain green and a deep leathery green in color.

For a non-selective burndown of emerged annual grasses, broadleaf weeds and nutsedge, use this product in

combination with glyphosate herbicide formulations labeled for these same uses.

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

Crop	Rate Oz./Acre	PHI	RESTRICTIONS
WATERMELONS	½ - 1	57	For use only in: AL, AR, AZ, CA, CT, DE, FL, GA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TN, TX, VA, VT, WA, WV, WI. Do not apply more than 1 oz. (0.047 lbs. active ingredient) per acre per application. Do not exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-month period (includes applications to the crop and to row middle).

For spray applications, cover the treatment area with sufficient water to provide uniform coverage and distribution of the spray mixture to the weeds or soil. For ground equipment, use a minimum of 20 gallons of water per acre.

Direct-seeded: Bare Ground

Use Rate: ½ - ¾ oz.

Pre-emergence – Apply this product pre-emergence for the suppression of nutsedge and control of listed broadleaf weeds. Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate. Where soil is fumigated prior to planting, allow at least five days after soil fumigation before application of this product.

Direct-seeded: Plastic mulch

Use Rate: ½ - ¾ oz.

Pre-seeding – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-seeding application under the plastic mulch. After final bed shaping and just prior to the installation of the plastic mulch, apply this product. No sooner than 7 days after the application and the installation of the plastic mulch, plant watermelon seeds into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. Soil treated with this product in the planting hole may result in crop injury. During the seeding process, take care to limit movement of soil.

Transplanted: Bare ground

Use Rate: ½ - ¾ oz.

Pre-transplant – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-transplant application under the plastic mulch. No sooner than 7 days after the application, transplant watermelons into this treated area unless local conditions demonstrate safety at an earlier interval. For lighter textured soils with low organic matter, use the lower rate. This product treated in soil in transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.

Transplanted: Plastic mulch

Use Rate: ½ - ¾ oz.

Pre-transplant – For the suppression of nutsedge and control of labeled broadleaf weeds, use this product as a pre-transplant application under the plastic mulch. After final bed shaping and just prior to the installation of the plastic mulch, apply this product. No sooner than 7 days after the application and the installation of the plastic mulch, transplant watermelons into this treated area unless local conditions demonstrate safety at an earlier interval. Treated soil in the transplant hole may result in crop injury. During the transplant process, take care to limit movement of soil.

Direct-seeded and Transplant:

Use Rate: ½-1 oz.

Row Middle Applications – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of direct-seeded or transplanted crop. Avoid contact of the herbicide with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Adjust the rate within the specified rate range and spray volume proportionally to the actual treated area.

CROP ROTATIONAL GUIDELINES

Following applications of this product, the crop rotational intervals listed below provide for adequate safety to newly planted crops. If the crop is planted in a shorter interval, crop injury may result. If the degradation of halosulfuron-methyl is slowed down by the conditions such as drought, cool conditions or drip irrigation in Arizona and California, the time lines need to be extended. Since all possible environmental and application scenarios, have not been tested, Loveland Products, Inc. suggests that the end user test this product in order to determine its suitability for such intended use. In areas where local experience has demonstrated crop safety, use the shorter intervals. In the event of crop failure, labeled crops may be planted back into the treated area at the user's risk for potential phytotoxicity to the subsequent crop.

**TIME INTERVAL (MONTHS)
BEFORE PLANTING AFTER USE OF
LPI HALOSULFURON**

CROP	MONTHS	EXCEPTIONS
CROP NOT SPECIFICALLY LISTED	36	
Alfalfa	9	
Barley (winter)	2	
Beans, Dry	9	In the northeast, southeast, TX and CO: 2 months.
Beans, Snap	9	In the northeast and southeast: 2 months; In TX: 3 months.
Broccoli	18	In muck soils areas of FL: 3 months.
Cabbage	15	In muck soils areas of FL: 3 months.
Canola	15	
Carrot	15	
Cauliflower	18	In muck soils areas of FL: 3 months.
Cereal crops, Spring	2	
Clovers	9	
Collards	18	
Corn, IR/IMR Field	0	
Corn, IT Field	1	
Corn, Normal Field	1	
Corn, Seed	2	
Corn, Sweet and Popcorn	3	For sweet corn and popcorn, the application rates of this product are specific to those crops. For re-planting sweet corn and popcorn crops in those treated areas, that are lost, terminated or harvested, the crop rotational interval must be adhered to.
Cotton	4	
Cucumbers	9	In the northeast and southeast: 2 months; In TX: 3 months.
Eggplant	12	For FL transplants: 4 months.
Forage Grasses	2	
Lettuce Crops	18	In muck soils areas of FL: 3 months.
Melons	9	In southeast and TX: 2 months.
Mint	15	

CROP	MONTHS	EXCEPTIONS
Oats	2	
Onions and Leeks	18	
Peanuts	6	
Peas	9	
Peas. Fields	9	
Peppers	10	For FL transplants: 4 months and for TX transplants: 3 months.
Potatoes	9	
Pumpkins	9	In southeast: 2 months.
Proso Millet	2	
Radish	12	In muck soils areas of FL: 3 months.
Red Beet	24	If irrigation is required or rainfall is sparse, the time interval is 36 months.
Rice	2	
Rye (winter)	2	
Sorghums	2	
Soybeans	9	
Spinach	24	In muck soils areas of FL: 3 months.
Squash	9	In southeast: 2 months.
Strawberries	36	For annual FL transplants: 6 months.
Sugar beet	24	If irrigation is required or rainfall is sparse, the time interval is 36 months; In MI: 21 months; In MN, ND, Red River Valley: 36 months.
Sugarcane	0	
Sunflowers	18	
Tomato (transplant)	8	In the northeast and southeast: 2 months; In TX: 3 months.
Wheat (winter)	2	

When used with tank mixture partners, consult the partner product labels to determine rotational crop restrictions. Follow the most restrictive label when planning and applying the tank mixture combinations.

Southeast: AL, FL, GA, LA, MS, NC, Puerto Rico, SC, TN.
Northeast: CT, DE, IA, IL, IN, KY, MA, MD, ME, MI, MN, MO, ND, NE, NH,
NJ, NY, OH, PA, RI, SD, VA, VT, WI, WV.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a dry and secure location.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, 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.

[Plastic bottles]

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment

or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once triple rinsed, recycle if available. Some agricultural pesticide containers can be taken to a container collection site or pick up for recycling. To find the nearest site, contact your chemical dealer or manufacturer. If recycling is not available, dispose of in a sanitary landfill or by incineration if allowed by state and local ordinances.

[Fiber Drums with Liners:]

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into the handling or application equipment. Then offer for recycling if available, or dispose of liner in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke. If drum is contaminated and cannot be reused dispose of it in the manner required for its liner.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

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BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

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- [Your sedge solution]
- [Easy Handling Formulation]
- [Provides Nutsedge Control]
- [Tank Mix Compatible]
- [Economical and Effective]
- [Easy on Crop Tough on Nutsedge]