27.49-528

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

7/21/2014



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION 151

John F. Wright Aceto Agricultural Chemical Corporation 4 Tri Harbor Court Port Washington, NY 11050

JUL 2 1 2014

Subject: Notification; Per PR-Notice 98-10 Halosulfuron 75 WDG Herbicide EPA Reg. No. 2749-528 Date Submitted: July 15, 2014

-Dear Mr. Wright:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated July 15, 2014 for the product referenced above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact me at (703) 306-0415 or <u>davis.kable@epa.gov</u>.

Sincerely.

Kable Bo Davis Product Manager 25 Herbicide Branch Registration Division (7505P)

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SEPA Environmer	United States			n Approved. OMB No. 2070-006 Registration Amendment V Other		O. Approvel expires 2-28-95 OPP Identifier Number
	Applicatio	on for Pesticide - S	ection	l		
1. Company/Product Number 2749-528	•	2. EPA Product Kable Davis	Manager		3. Pr	oposed Classification
4. Company/Product (Name) Halosulfuron 75 WDG Herbicide		<b>PM#</b> 25				
5. Name and Address of Applicant (Include Zi	P Codel		Reveiw	In accord:		FIFRA Section 3(c)(3)
Aceto Agricultural Chemical Corpor 4 Tri Harbor Court Port Washington, NY 11050			uct is sin	nilar or iden	tical in co	mposition and labeling
Check if this is a new address		Product Nan	ne		,	
		Section - II				
Amendment - Explain below.	Agenci	Final printed labels in repsonse to Agency letter dated "Me Too" Application. Other - Explain below.				
			<u> </u>		<u></u>	
1. Material This Product Will Be Packaged In:	, 	Section - III				
Child-Resistant Packaging Unit Packaging		Water Soluble Packaging		2. Type of	Container	
Yes Yes No		Yes No			Metal Plastic Glass	
* Certification must be submitted	No.per vgt.container	If "Yes" No.   Package wgt cont			_ Paper 」 Other (S	pecify)
3. Location of Net Contents Information	4. Size(s) Ret	ail Container	5. Location of Label Directions On container			ins
6. Manner in Which Label is Affixed to Produc	Lithog Paper Stenci	raph ( glued led	)ther			
		Section - IV	<b>1</b>			L. L. L.
1. Contact Point <i>(Complete items directly belo</i>	w for identificatio	n of individual to be contac	ted, if ned	essary, to pr		
Name John F. Wright	Title Authorized Representativ	prized Representative		Telephone No. (Include Area Code) 856.424.1528		
I certify that the statements I have made I acknowledge that any knowlinglly false both under applicable law.		all attachments thereto are				6. Dete Application C Received ccccc ((Stainped)
2. Signature		3. Title Authorized Representative				
4. Typed Name John F. Wright		5. Date 7/15/14				

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete.

.

Yellow - Applicant Copy

# Product & Regulatory Associates, LLC

July 15, 2014

Mr. Kable Bo Davis (PM25) Document Processing Desk (NOTIF) Office of Pesticide Programs (7504P) U.S. Environmental Protection Agency Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202-4501

## Subject: Halosulfuron 75WDG Herbicide EPA Reg. No. 2749-528 Label Notification

Dear Mr. Davis:

On behalf of Aceto Agricultural Chemicals Corporation (Aceto), I am transmitting to the U.S. Environmental Protection Agency this application for a pesticide label notification for Halosulfuron 75WDG Herbicide, EPA Reg. No. 2749-528.

Aceto is revising the label to add the states of California and Washington to the crop group watermelons. These states were not on the original registration. Due to recent testing in the states, this use is now possible.

A highlighted version of the label is included to facilitate your review.

To complete this amendment application, enclosed please find:

- Cover letter
- Registration Application (EPA Form 8570-1)
- Highlighted label (one copy)
- Proposed label (three copies)
- E-Label Disk 002749-00528.20140715.Notification.pdf

If you have any question in regard to this matter, feel free to contact me at (856) 424-1528 or JWrightCH@comcast.net.

Sincerely John FOWright

Product & Regulatory Associates, LLC Authorized Representative of Aceto Agricultural Chemicals Corporation cc: Terry Kippley, Aceto Agricultural Chemicals Corporation

> 8595 Collier Blvd., Suite 107-51, Naples, FL Telephone 856 424-1528

	GRUUP		NERDICIDE
HALOSULFURON 75WDG HERBIC	CIDE		
<ul> <li>HALOSULFURON 75WDG HERBICIDE is an herbicide for selective pre-emer weeds including both broadleaf weeds and nutsedge in:</li> <li>alfalfa;</li> </ul>	gent and post	t-emergent c	ontrol of listed
<ul> <li>corn (field corn, field corn grown for seed, sweet corn and popcorn);</li> <li>cotton;</li> </ul>	I	NOTIFIC	ATION
<ul> <li>fallow ground;</li> <li>fruits (cantaloupes, honeydews, Crenshaw melons, watermelons);</li> </ul>		JUL 2	2014
<ul><li>grain sorghum (milo);</li><li>rice;</li></ul>			
<ul> <li>sugarcane;</li> <li>tree nuts (Almonds, Beechnuts, Brazil nuts, Butternuts, Cashews, Chest Macadamia nuts, Pecans, Pistachios, Walnuts {Black and English});</li> </ul>	nuts, Chinqua	apins, Filber	ts, Hickory nuts,
			1. 0

- turfgrasses (established lawns, ornamental turfgrass, landscaped areas, commercial and residential turfgrass), and
  other non-crop sites (including airports, cemeteries, fallow 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);
- vegetables (asparagus, cucurbit vegetables group, cucumbers, dry beans, fruiting vegetables group, peppers {chili and bell}, pumpkin, succulent snap beans, tomatoes and winter squash).

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

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

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

EPA Reg. No. 2749-528 EPA Est. No. 065387-AR-001 Net Contents: 10, 20 ounces 0.03 ounces (0.9 grams) [water-soluble bag] 1.3 ounces 55 lbs. (25kg)

Manufactured for: Aceto Agricultural Chemicals Corporation 4 Tri Harbor Court Port Washington, NY 11050

## 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)

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUSES MODERATE EYE IRRITATION. HARMFUL IF SWALLOWED. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Aceto Agricultural Chemicals Corporation

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· · · · · · · · · · · · · · · · · · ·	First Aid
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
	<ul> <li>Call poison control center or physician for treatment advice.</li> </ul>
IF SWALLOWED:	<ul> <li>Call poison control center or physician immediately for treatment advice.</li> </ul>
	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 containe	r or label with you when calling a poison control center or physician, or going
for treatment. FOR MED	ICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL
CHEMTREC® TOLL FRI	EE 1-800-424-9300 or 1-703-527-3887.

## 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:

- Remover 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.

FOR CHEMICAL SPILL, LEAK, FIRE, EXPOSURE OR MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL CHEMTREC<sup>®</sup> TOLL FREE 1-800-424-9300 or 1-703-527-3887.

## 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.

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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.

## **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 Aceto 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.

## 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, such as nitrile rubber, neoprene rubber or polyethylene. For more options, follow instructions for category A (dry and water-based formulations) on an EPA chemical resistant category selection chart.

## 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**

HALOSULFURON 75WDG HERBICIDE 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.

HALOSULFURON 75WDG HERBICIDE is quick to act on targeted weeds by stunting growth allowing the crop to over take the development of the targeted weeds. Once the development of the targeted weeds is stunted, the leaves and growing

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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.

## **Resistant Management Guidance**

HALOSULFURON 75WDG HERBICIDE is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to HALOSULFURON 75WDG HERBICIDE and other Group 2 herbicides. Weed species with acquired resistance to Group 2 may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as primary method of control for target species. This may result in partial or total loss of control of those species by HALOSULFURON 75WDG HERBICIDE or other Group 2 herbicides.

To delay resistance consider:

- Avoiding the consecutive use of HALOSULFURON 75WDG HERBICIDE or other target site action Group 2 herbicides that have a similar target site of action, on the same weed species.
- Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisor, and/or manufacture and/ or integrated weed
  management specialist for specific crops and resistant weed biotypes.

#### **Mixing Instructions**

HALOSULURON 75WDG HERICIDE 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 HALOSULFURON 75 WDG HERBICIDE 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 HALOSULFURON 75WDG HERBICIDE 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.

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oz. of Product	lb. Active Ingredient
per acre	per acre
1/2	0.0235
2/3	0.031
1	0.047
11/3	0.062
2	0.094
· 2²/3	0.125
51/3	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. Loss in effectiveness or crop injury may result if weeds are under drought, stress, disease or insect damage.

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.

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

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.

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 HALOSULFURON 75WDG HERBICIDE 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 HALOSULFURON 75WDG HERBICIDE 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.

#### **Spray Drift Management**

Do not allow this product to drift onto neighboring crops or non-crop area or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment – and weather – related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

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

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.Aceto Agricultural Chemicals CorporationHALOSULFURON 75WDG HERBICIDEJuly 15, 2014

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more then 45 degrees. Where states have more stringent regulations, they must be observed.

## The importance of spray droplet size:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but may not prevent drift if applications are made improperly or under unfavorable environmental conditions (see the following "Wind", "Temperature and Humidity" and "Temperature Inversion" sections of this advisory).

## Controlling initial droplet size:

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher flow rates producer larger droplets.
- Pressure Use the lower spray pressures listed for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation Orienting nozzles so the spray stream is released backwards, parallel to air stream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle type- Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

#### Controlling placement of spray droplets:

- Boom Length For some use patterns, to further reduce drift without shorting the swath width, reduce the effective boom length to less than <sup>3</sup>/<sub>4</sub> of the wingspan or rotor length.
- Application height Do not apply greater than 10 feet above the top of the tallest plants unless a great height is required for aircraft safety. Greater application heights result in greater droplet size reduction through evaporation and greater movement in air currents. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Application speed Slower aircraft speeds within a safe range will produce less air turbulence and fewer small droplets.

Swath adjustment – When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicators must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distances should increase drift potential (wind speed, droplet size, etc.)

#### Key environment factors:

- Wind Drift potential is the lowest between wind speeds of 2 to 10 mph. However, many factors including droplet size and equipment type determine drift potential at any given point. Application must be avoided when wind speeds are below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Applicators must be familiar with local wind patterns and how they affect drift.
- Temperature and Humidity when making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.
- Temperature Inversions Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable air currents that are common during inversions. Temperature inversions are characterized by increasing temperatures which altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke detector. 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.

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## 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 habits 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.

## 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 HALOSULFURON 75WDG HERBICIDE. 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.

Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that are to be treated, and application restrictions including pre-harvest intervals and crop rotation information. Pay particular attention to any soil insecticide interaction restrictions and lists of susceptible or tolerant crop hybrids. Soil interaction information appears on labels such as Accent®, Accent Gold®, Basic® Gold, Callisto®, Option®, Steadfast®, etc. Susceptible crop hybrid restrictions are listed on labels such as Beacon® and Accent®, etc. Tolerant hybrids are provided on labels such as glyphosate products and Liberty®. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

The user assumes the responsibility for following all label use directions.

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If HALOSULFURON 75WDG HERBICIDE 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 1qt. 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 usual 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 concentrated (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<sup>1</sup>/<sub>3</sub> 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. Under these conditions, tank mixture applications may cause temporary crop injury.

### **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.
- The maturity of the treated crops may be delayed by use of 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, do not use 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. The user assumes responsibility for such use and any plant injury that may occur.
- After use of this product, thoroughly clean application equipment immediately prior to spraying another crop.
- 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.

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## 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.

HALOSULFURON 75WDG HERBICIDE is quick to act on targeted weeds by stunting growth allowing the crop to over take 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.
  - o After a post-emergence application, delay overhead sprinkler irrigation for 2 to 3 days.
  - o 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 HALOSULFURON 75 WDG HERBICIDE by Weed Species

Common Name	Scientific Name	Control	Suppression	Comments
Amaranth, Spiny	Amaranth spinosus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Cocklebur, common	Xanthium strumarium	YES		
Corn Spurry	Spergula arvensis	YES		
Dayflower	Commelina erecta	YES		· ·
Eclipta	'Ecilpta prostrate	YES	· · ·	
Flatsedge, Rice	Cyperus iria		YES	
Galinsoga	Galinsoga	YES		
Goosefoot		YES		
Groundsel, common	Senecio vulgaris	YES		

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Horseweed/Marestail	Erigeron canadensis	YES		
Jimsonweed	Datura stramonium	YES		
Kochia	Kochia scoparia	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Ladysthumb	Polygorum persicaria	YES		
Lambsquarter, common	Chenoposium album	YES		
Mustard, wild	Sinapis arevensis	YES		
Nutsedge, Yellow	Cyperus esculentus		YES	Use higher specified rates for suppression
Nutsedge, Purple	Cyperus rotundus		YES	Use higher specified rates for suppression
Pigweed, redroot	Amarunthus retroffiexus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Pigweed, smooth	Amaranthus hybridus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Purslane	Portulace oleracea		YES	
Radish, wild	Rapharius raphanistrum	YES		
Ragweed, common	Ambrosia artemisiifolia	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Shepardspurse	capsella bursapastoris (L.) medicus	YES		
Smartweed,	Polyfonum	YES		· · · ·
Pennsylvania	pensylvanisum			
Sunflower	Helianthus annuus	YES		
Velvetleaf ·	Abutilan the ophrasti	YES		

<sup>1</sup> Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.

## Post-emergent Weed Activity Table HALOSULFURON 75 WDG HREBICIDE by Weed Species

Common Name	Scientific Name	Control	Suppression	Comments
Amaranth, Spiny	Amaranth spinosus			Certain biotypes of this weed are
		YES		know to be resistant to ALS herbicides. <sup>1</sup>
Barnyardgrass	Echinochloa crusgalli	YES		Tank Mix Partner C
Bindweed	Calystegia sepium	YES		Tank Mix Partner A
Burcucumber	Sicyas angulatus	YES	YES	Control - Tank Mix Partner A
California Arrowhead	Sagittaria ontevidensis	YES		1-1 <sup>1</sup> / <sub>3</sub> ounce rate required.
Cocklebur, common	Xanthium strumarium	YES		
Corn Spurry	Spergula arvensis	YES		
Cupgrass, Woolly	Eriochloa villosa	YES		Tank Mix Partner C
Dayflower	Commelina erecta		YES	
Dogbane Hemp	Apocynum annabinum		YES	Tank Mix Partner A
Eclipta	Ecilpta prostrate		YES	

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Flatsedge, Rice	Cyperus iria	YES		
Fleabane, Philadelphia	Erigeron philadelphicus	YES		
Foxtail, giant, yellow,		YES		Tank Mix Partner C
green bristly				
Galinsoga	Galinsoga	YES		
Golden Crownbeard	Verbesina encliodes	YES		· · · · · · · · · · · · · · · · · · ·
Goosefoot	· · · · · · · · · · · · · · · · · · ·	YES		
Horsenettle	Solanum carolinense	YES		
Horsetail	Equisetum		YES	
Itchgrass	Rottboelliacochinchinensis	YES		Tank Mix Partner C
Jointvetch	Aeschynomene	YES		· · · ·
Johnsongrass rhizome, seedling	Sorghum halepense	YES		Tank Mix Partner C and D
Kochia	Kochia scoparia		YES	Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Ladysthumb	Polygorum persicaria	YES		
Mallow, Venice	Hibiscus trionum	YES		
Milkweed, Common	Asclepias syriaca	-	YES	
Milkweed, honeyvine	Ampelamus albidus		YES	
Millet, Wild Proso	Paniucum miliaceum	YES		Tank Mix Partner C
Morningglory, Ivyleaf	Ipomoea hederacea	YES	YES	Control - Tank Mix Partner A Use higher rates for suppression.
Morningglory, Tall	Ipomoea purppurea	YES	YES	Control - Tank Mix Partner A Use higher rates for suppression.
Mustard, wild	Sinapis arevensis	YES		
Nightshade, Black	Solanum americanum	YES		Tank Mix Partner B
Nutsedge, Yellow	Cyperus esculentus	YES		Heavy infestation requires sequentia applications.
Nutsedge, Purple	Cyperus rotundus	YES		Heavy infestation requires sequentia applications.
Oats		YES		Tank Mix Partner C
Panicum, Fall	Panicum dichotomiflorum	YES		Tank Mix Partner C and D
Panicum, Texas	Panicum texanum	YES		Tank Mix Partner C
Passionflower, Maypop	Passiflora incarnata	YES		
Pigweed, redroot	Amarunthus retroffiexus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Pigweed, smooth	Amaranthus hybridus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Pokeweed, common	Phytolacca	YES		
Quackgrass	Elytrigia repense	YES		Tank Mix Partner C and D
Radish, wild	Rapharius raphanistrum	YES		
Ragweed, common	Ambrosia artemisiifolia	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Ragweed, giant	Ambrosia trifida	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Redstem	Ammania auriculata	YES		$1-1\frac{1}{3}$ ounce rate required.
Ricefield Bulrush	Scirpus mucronatus	YES		Certain biotypes of this weed are know to be resistant to ALS herbicides. <sup>1</sup>
Ryegrass, Italian	Lollum Multiflorum	YES		Tank Mix Partner C

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Sandbur		YES		Tank Mix Partner C
Sesbania, Hemp	Sesbania exaltata	YES		
Shattercane	Sorghum bilcolor	YES		Tank Mix Partner C and D
Signalgrass, broadleaf		YES		Tank Mix Partner C
Shepardspurse	capsella bursapastoris(L.) medicus		YES	
Sida, prickly		YES		
Smallflower	Umbrellaplant	YES		1-1 <sup>1</sup> / <sub>3</sub> ounce rate required.
Smartweed, Pennsylvania	Polyfonum Pensylvanisum	YES		
Sorghum Almum		YES		Tank Mix Partner C and D
Thistle, Canada	Cirsium arvense	YES		Tank Mix Partner A
Sunflower	Helianthus annuus	YES		
Velvetleaf	Abutilan the ophrasti	YES		

 Velvetleaf
 Abutilan theophrasti
 YES
 Image: Market state st

## Tank Mix Partner A – HALOSULFURON 75WDG HERBICIDE with 2,4-D and dicamba on sorghum and corn.

## Tank Mix Partner B - HALOSULFURON 75WDG HERBICIDE with dicamba on sorghum and corn.

## Tank Mix Partner C - HALOSULFURON 75WDG HERBICIDE with Accent®, Option® or Steadfast® on corn.

## Tank Mix Partner D - HALOSULFURON 75WDG HERBICIDE with Beacon® on corn.

HALOSULFURON 75WDG HERBICIDE Crop/Use Site Index [Pages to be added in final version]

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Summer squash for processing, Tomatoes

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The use rate for HALOSULFURON 75 WDG 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 HALOSULFURON 75WDG HERBICIDE and the harvesting of the crop.

For the minimum acceptable intervals between the last application of HALOSULFURON 75WDG and the planting of a rotational crops, see the Crop Rotation Guideline section of this label.

If HALOSULFURON 75WDG HERBICIDE 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
ALFALFA	2⁄3 - 1	14	CA and AZ only. Do not apply more than 2 oz. of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12- month period.

**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. For ground equipment, use a minimum of 20 gallons of water per acre. 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.

**Post-emergence Spot Treatment** – Use a spot treatment application for localized control of emerged nutsedge. Do not exceed <sup>3</sup>/<sub>4</sub> oz. product per treated acre in these areas. Use sufficient water volume to allow for uniform coverage of the weeds.

Sequential Post-emergence Treatments for Nutsedge Control – To maximize the control of nutsedge, a second postemergent 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 <sup>3</sup>/<sub>4</sub> oz. product per treated acre in these areas. Use sufficient water volume to allow for uniform coverage of the weeds. This sequential treatment has the greater potential for growth and yield reduction.

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.

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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
ASPARAGUS	1/2 - 1/2	1	For first year transplants, apply no sooner than six weeks after fern emergence. Do not Make more than 2 applications per crop cycle. Do not apply more than 2 oz. of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12- month period.

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, translated crowns and established beds.

**Post-emergence** – **Post-transplant** – Apply this product to asparagus before or during the harvesting season. Do not use an adjuvant with any applications in this time period since it may increase the potential for crop injury. When used without an adjuvant, a reduced spectrum and degree of weed control will occur.

Post-harvest - Apply this product at the end of the harvest season. Under heavy nutsedge pressure, use sequential

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HALOSULFURON 75WDG HERBICIDE Notification Page 13 of 48 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 <sup>3</sup>/<sub>4</sub> to 1 oz. product per acre. Make a sequential application by applying <sup>3</sup>/<sub>4</sub> 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
CHILE AND BELL PEPPERS	1/2-1	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. 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
COTTON (except CA)	2/3 - 11/3	28	Do not apply more than $1\frac{1}{3}$ oz. 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.

For post-emergent weed control in emerged cotton, apply this product as a directed spray in hooded equipment. Make application anytime after cotton emergence until row closure prohibits the use of hooded spray equipment. Use this product anytime 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.

Crop	Rate Oz./Acre	PHI	LIMITATIONS
CUCUMBERS (including	1/2 - 1	30	Do not apply more than 2 applications per crop cycle.
pickles),			Do not apply more than 2 oz. of this product per acre per crop cycle
Cantaloupes,		57	not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-
Honeydews,	ļ	57	month period (includes applications to the crop and to row
<b>Crenshaw Melons</b>	2	57	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: Bare ground** 

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

*Post-emergence* – 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

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#### with the crop.

## **Direct-seeded: Plastic mulch**

*Pre-seeding* – 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.

*Post-emergence* – Use after the crop has at least 3-5 true leaves but before first female flowers appear. Apply as an overthe-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 cáre 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 postemergent 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
OTHER COMMODITIES IN THE CUCURBIT VEGETABLES GROUP	½ - 1	See Text	Including but not limited to 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. of this product per acre per crop cycle, not to exceed 2 oz. (0.094 lb. active ingredient) per acre per 12-

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## 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
DRY BEANS	1/2 - 1		Do not apply more than 1 oz. 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.

Use Rate: ½ - ¾ oz.: Direct-Seeded Pre-emergence - Use this product after planting, but before cracking. For lighter textured soils with low organic matter, use the lower rate.

Use Rate:  $\frac{1}{2}$ -1 oz.: Row Middle/Furrow Applications – 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 HALOSULFURON 75WDG HERBICIDE partnered with Eptam® 7-E will provide a broader spectrum of weed control than either product used separately.

Use HALOSULFURON 75WDG HERBICIDE at a rate of  $\frac{1}{2} - \frac{2}{3}$  oz. with Eptam® 7-E at a rate of 3  $\frac{1}{2} - 4 \frac{1}{2}$  pts. per acre and incorporate into the soil at a depth of approximately 2 inches before planting. If any crush appears on the soil, break it up<sup>-</sup>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.

Check the EPTAM® 7-E label for specific incorporation and directions.

## **Restrictions for Tank Mixture Partner**

Do not apply more than  $\frac{3}{2}$  oz. 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). Do not exceed  $3\frac{1}{2}$  pints EPTAM® 7-E per acre on small white beans or green beans grown on coarse textured soils.

Do not exceed 7 pints per acre per crop of EPTAM® 7-E in the Southwestern and Southeastern regions.

Do not exceed 8 pints per acre per crop of EPTAM® 7-E in the Western region.

Do not use EPTAM® 7-E on Adzuki beans, cowpeas (black-eyed peas, black-eyed beans), soybeans, lima beans, Mung beans, Garbanzo beans or other flat-podded beans except Romano.

Stunting may occur on Gratiot, Michilite, Sanilac, Seafarer, and Seaway varieties under abnormal weather conditions. Do not exceed 9 pints EPTAM® 7-E per acre per crop.

Do not exceed 9 pints per acre per crop of EPTAM® 7-E in the Pacific Northwestern region.

Do not exceed 9<sup>3</sup>/<sub>4</sub> pints of EPTAM® 7-E in the Northern region.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
FALLOW GROUND	<sup>2</sup> / <sub>3</sub> - 1 <sup>1</sup> / <sub>3</sub>		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.
			und. For spray applications, cover the treatment area with sufficient f the spray mixture to the weeds or soil.

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Сгор	Rate Oz./Acre	PHI	LIMITATIONS		
FIELD CORN AND FIELD	$\frac{2}{3} - \frac{1}{3}$	30	Do not make more th	an 2 applications per	crop use season.
CORN GROWN FOR	1		Do not apply more th	an $2\frac{2}{3}$ oz. of this pro	oduct (0.125 lb. active
SEED			ingredient) per acre p	er use season.	
			After application to fe	oliage, allow 30 days	before grazing domestic
			livestock, harvesting		silage.
· · · · · · · · · · · · · · · · · · ·			eed Height Activity Tal		
Weed Activity		C	ontrol		ression
Rate of Product	2/3	oz.	1 - 1 <sup>1</sup> / <sub>3</sub> oz.	<sup>2</sup> / <sub>3</sub> OZ.	1 - 1⅓ oz.
Weed Height	Inc	hes	Inches	Inches	Inches
Burcucumber				1 - 3	4 - 12
Cocklebur, common	1 -		9-14		
Fleabane, Philadelphia		- 3			
Kochia <sup>1</sup>	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 <sup>2</sup>	3 -		3 - 12	•	
purple	and the second sec	6	3 - 12		
Passionflower, maypop		. 3		·	
Pigweed, redroot <sup>1, 3</sup>	1 -		4 - 6		
Pokeweed, common	1 -	· 6			
_Radish, wild			4 - 6_		
Ragweed: common <sup>1</sup>		. 9	9 - 12		
Giant <sup>1</sup>			• 4 - 6	<u>.</u>	
Smartweed, Pennsylvania	1.				
Sunflower, common	1 -		12 - 15		
Velvetleaf See Pre-emergent and Post-er	1 -		9 - 12 <sup>3</sup>		

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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.

<sup>3</sup> 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.

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.

In tank mixture applications, use directed or semi-directed drop nozzles on corn greater than 24 inches tall.

## | Tank Mixture Partners

Rate per Acre:	4 – 8 fl. oz.
Spray Additive:	NIS
Application Methods:	Apply broadcast spray on corn up to 8 inches tall.
	If corn exceeds 8 inches, use directed spray with drop nozzles.
Improved Control:	Broadleaf weeds.
Limitations:	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.
Rate per Acre:	0.67 oz.
Spray Additive:	COC or NIS or ammonium nitrogen fertilizer (e.g. 28%).
Application Methods:	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.
Chemicals Corporation H	ALOSULFURON 75WDG HERBICIDE July 15, 2014
	Spray Additive: Application Methods: Improved Control: Limitations: Rate per Acre: Spray Additive: Application Methods:

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	Turning Control	A must breadlesfunde and empired anone
	Improved Control: Limitations:	Annual broadleaf weeds and annual grasses. Avoid sprays directly into the whorls of large cornstalks.
	Limitations.	Refer to Accent® label for use restrictions on corn varieties.
Accent Gold®	Rate per Acre:	2.9 oz.
Herbicide	Spray Additive:	COC or ammonium nitrogen fertilizer (e.g. 28%).
	Application Methods:	Apply broadcast spray on corn up to 12 inches tall.
	Improved Control:	Annual broadleaf weeds and annual grasses.
······································	Limitations:	Do not apply to seed corn.
Atrazine 4L	Rate per Acre:	1.5-3 pts. (0.75 to 1.5 lbs. active ingredient )
Herbicide	Spray Additive:	COC Apply breadcast spray on corp up to 12 inches toll
	Application Methods:	Apply broadcast spray on corn up to 12 inches tall. Apply when broadleaf weeds are small (3 inches or less).
	Improved Control:	Post-emergence control of labeled broadleaf weeds.
	, improved condition	Aids in the burndown and control of many grass weeds (1.5 inches or less)
		which have escaped pre-emergence herbicide treatments.
	Limitations:	Atrazine mixtures may result in reduced control (antagonism) of larger
		broadleaf weeds.
	D-t	Smaller weeds are easier to control.
Atrazine 90DF Herbicide	Rate per Acre: Spray Additive:	0.83 – 1.67 lb. (0.75 to 1.5 lbs. active ingredient ) COC
Herbicide	Application Methods:	Apply broadcast spray on corn up to 12 inches tall.
	ripplication methods.	Apply when broadleaf weeds are small (3 inches or less).
	Improved Control:	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.
	Limitations:	Atrazine mixtures may result in reduced control (antagonism) of larger
		broadleaf weeds.
Banvel®	Rate per Acre:	Small weeds are easier to control. 2-8 fl. oz.
Herbicide or	Spray Additive:	2 - 6 H. 62. NIS
Clarity®	Application Methods:	Apply broadcast spray on corn from emergence up to 36 inches tall. Use
Herbicide		lower Banvel rates or directed sprays on corn taller than 8 inches.
(dicamba)	Improved Control:	Broadleaf weeds.
	Limitations:	Avoid direct sprays into the whorls of large cornstalks.
		Do not make applications after corn exceeds 36 inches or 15 days before
		tassel emergence, whichever comes first. COC may cause crop injury, especially with higher Banvel® or Clarity®
		rates.
Basis® Gold	Rate per Acre:	14 oz.
Herbicide	Spray Additive:	COC or NIS or ammonium nitrogen fertilizer (e.g. 28 %).
	Application Methods:	Apply broadcast spray on corn up to 12 inches tall.
	Improved Control:	Broader spectrum.
	Limitations:	Do not apply to seed corn.
Beacon®	Rate per Acre:	$0.76 \text{ oz.} (\frac{1}{2} \text{ packet})$
Herbicide	Spray Additive:	COC or NIS or ammonium nitrogen fertilizer (e.g. 28 %).
	Application Methods:	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.
	Improved Control:	Broader spectrum.
	Limitations:	Avoid spraying directly into whorls of larger corn.
		See your dealer or seed supplier representative for a list of susceptible
		hybrids.
Buctril®	Rate per Acre:	0.5 – 1 pt.
Herbicide	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray on corn up to tassel emergence.
	Improved Control:	For post-emergence control of annual broadleaf weeds.
	Limitations:	Leaf burn may occur.
		Use of COC or ammonium nitrogen fertilizer (e.g. 28%) may cause additional leaf burn.
	J	

Buctril® Herbicide plus	Rate per Acre: Spray Additive:	1 – 2.5 pts. NIS
Atrazine	Application Methods:	Apply broadcast spray on corn up to 12 inches tall.
	Improved Control:	For post-emergence control of annual broadleaf weeds.
	Limitations:	Leaf burn may occur.
		Use of COC or ammonium nitrogen fertilizer (e.g. 28%) may cause
		additional leaf burn.
Callisto® 4L	Rate per Acre:	3 oz.
Herbicide	Spray Additive: Application Methods:	COC or ammonium nitrogen fertilizer (e.g. 28 %). Apply broadcast spray or with drop nozzles on seed or field corn up to 30
	Application Methods.	inches tall or 8 leaf collars, which ever is more restrictive.
	Improved Control:	Broader spectrum.
Distinct®	Rate per Acre:	4 oz.
Herbicide	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray or with drop nozzles on corn 4 - 36 inches tall, e.g.
		$V_2$ to $V_{10}$ stage or 15 days prior to tassel emergence, whichever comes first.
		For corn taller than 20 inches, use drop nozzles.
	Improved Control: Limitations:	Broader spectrum.
	Limitations:	Avoid sprays directly into the whorls of large cornstalks. Do not use COC.
Glyphosate	Rate per Acre:	0.56 - 1.125 lb./acid/active ingredient.
(various	Spray Additive:	NIS or spray grade ammonium sulfate at 17 lb. /100 gal.
formulations)	Application Methods:	Apply broadcast spray or with drop nozzles on Glyphosate Tolerant (GT)
,		field corn up to 30 inches tall or 8 leaf collars, which ever is more
		restrictive.
		For GT field corn between $24 - 36$ inches, use drop nozzles.
	Immerced Control	For corn taller than 20 inches, use drop nozzles.
	Improved Control: Limitations:	For burndown of emerged annual grasses, broadleaf weeds and nutsedge. Check product formulation label for specific restrictions.
•	Linnations.	For use ONLY on corn hybrids tolerant to glyphosate herbicide.
Glyphosate	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE at <sup>2/3</sup> oz. For glyphosate,
(various		see product formulation label.
formulations)	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray.
	Improved Control:	For pre-plant burndown of emerged annual grasses, broadleaf weeds and
	Limitations:	nutsedge. To improve burndown of broadleaf weed control use dicamba or 2,4-D.
	Limitations:	Use only on Pioneer IR corn hybrids.
Impact® 2.8L	Rate per Acre:	0.5 - 0.75 fl. oz.
Herbicide	Spray Additive:	NIS (preferred) or COC or ammonium nitrogen fertilizer (e.g. 28%).
	Application Methods:	Apply broadcast spray or with drop nozzles on seed or field corn up to 36
	· · ·	inches tall. For a density canopy, drop nozzles are preferred.
	Improved Control:	Broader spectrum.
Liberty® 1.67L	Rate per Acre:	28-34 fl. oz.
Herbicide	Spray Additive:	Spray grade ammonium sulfate (17lb./100 gallons of spray mix).
	Application Methods:	Apply broadcast spray or with drop nozzles on field corn up to 24 inches tall or 7 leaf collars which ever is more restrictive.
		For field corn taller than 24 inches up to 36 inches tall, use drop nozzles.
	Improved Control:	Broadleaf weeds and annual grasses.
	Limitations:	Do not add NIS or COC.
		For use ONLY on corn hybrids tolerant to Liberty® Herbicide.
Marksman®	Rate per Acre:	0.5 – 2 pts.
Herbicide	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray on corn up to 8 inches tall.
	Improved Control:	Broader spectrum.
	Limitations:	$\frac{\text{COC may cause crop injury.}}{1.5 - 1.75 \text{ oz.}}$
Option®	Rate per Acre: Spray Additive:	COC or ammonium nitrogen fertilizer (e.g. 28%) or spray grade
35WDG Corn		Image: Terminolitik introgen iertinzer (e.g. 28%) of spray grade       HALOSULFURON 75WDG HERBICIDE       July 15, 2014

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Ierbicide	·	ammonium sulfate (17 lb. /100 gal.).
Herbicide	Application Methods:	Apply broadcast spray or with drop nozzles on field corn $4 - 16$ inches tall
•	Application Methods.	e.g. $V_2$ to $V_6$ .
		For field corn taller than 16 up to 36 inches e.g. $V_6$ to $V_{10}$ , use drop nozzles.
	Improved Control:	Broader spectrum.
	Limitations:	Do not apply Option <sup>®</sup> to seed corn.
		Avoid spraying directly into the whorls of large cornstalks.
Status®	Rate per Acre:	5 fl. oz.
Ierbicide	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray or with drop nozzles on corn up to 20 inches tall.
	Immerced Control	For corn taller than 20 inches use drop nozzles.
	Improved Control: Limitations:	Broader spectrum. Do not use COC.
Steadfast®	Rate per Acre:	0.75 oz.
5DF Herbicide	Spray Additive:	COC (preferred) or NIS or ammonium nitrogen fertilizer (e.g. 28%) or
		spray grade ammonium sulfate (17 lb. /100 gal.).
	Application Methods:	Apply broadcast spray or with drop nozzles on field corn up to 20 inches
		tall or 6 leaf collars which ever is more restrictive.
	Improved Control:	Broader spectrum.
	Limitations:	Avoid spraying directly into the whorls of large cornstalks.
		Do not apply to seed corn.
Soil Residual	Rate per Acre: Tank Mix Partner:	Use HALOSULFURON 75WDG HERBICIDE at <sup>3</sup> / <sub>3</sub> oz. Micro-Tech® or Bullet® or Harness® Xtra or Harness® Xtra 5.6L or
Fank Mix Partners	Tank Mix Partner:	Degree® or Degree Xtra®.
ratules	Spray Additive:	NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100
		gallons of spray).
	Application Methods:	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®).
	Improved Control:	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 2 fl. oz. of Banvel® or Clarity® [dicamba].
	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE at <sup>2</sup> / <sub>3</sub> oz. and Accent® at <sup>1</sup> / <sub>3</sub>
	Rate per More.	$-\frac{1}{2}$ oz.
	Tank Mix Partner:	Micro-Tech® or Bullet® or Harness® Xtra or Harness® Xtra 5.6L or
		Degree® or Degree Xtra®.
	Spray Additive:	NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100
		gallons of spray).
	Application Methods:	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
	Improved Control	less than 11 inches tall ( 5 inches tall for Micro-Tech® and Bullet®).
	Improved Control:	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.
	Limitations:	To control emerged lambsquarter less than 4 inches tall, use 2 fl. oz. of
		Banvel® or Clarity® [dicamba].
	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE plus Accent®, Beacon®,
	-	Option® or Steadfast® at rates in the Corn Grass Weed Height Activity
	•	Table below.
	Tank Mix Partner:	Alachlor, acetochlor, metolachlor and dimethenamid.
	Spray Additive:	NIS (1.qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100
6		gallons of spray).
	Application Methods:	Apply as broadcast spray in 15 – 30 gallons of spray/acre to emerged
	Improved Control:	foxtails and other grasses. For early post-emergence and residual control of emerged foxtails and

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		(2	4)s
•		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.	
		See targeted weed heights listed in the Corn Grass Weed Height Activity	
		Table below.	
•	Limitations:	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.	
Pioneer IR Field	1 -	Use HALOSULFURON 75WDG HERBICIDE at 1 <sup>1</sup> / <sub>3</sub> - 2 oz.	
Corn Hybrids	Application Methods:	Apply broadcast spray to soil.	
•	Improved Control:	For residual control of velvetleaf, common cocklebur, common	
		lambsquarters, common ragweed, pigweed, smartweed, sunflower and	
		other difficult to control weeds.	
	Limitations:	Use only on Pioneer IR corn hybrids.	
Pre-plant,	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE plus Accent®, Beacon®,	
Pre-emergent.		Option® or Steadfast® at rates in the Corn Grass Weed Height Activity	
		Table below.	
	Tank Mix Partner:	Such as Harness®, Harness® Xtra, Harness® Xtra 5.6L, Degree®, Degree	
·		Xtra®, Micro-Tech®, Bullet®, Lasso®, alachlor, acetochlor, metolachlor	
		and dimethanamid.	
	Spray Additive:	NIS (1 qt./100 gallons of spray) and 28% nitrogen fertilizer (4 gal/100	
		gallons of spray).	
	Application Methods:	Apply as broadcast spray in $15-30$ gallons of spray/acre.	
		Apply as an early pre-plant surface-applied, pre-plant incorporated or pre-	
	Improved Controls	emergence treatment.	
	Improved Control:	For effective broadleaf control in tank partner combinations with pre-	
	· Limitations:	emergence grass herbicides across all tillage systems.	
	Linnauons:	Follow all directions and restrictions on this label and the tank mix	
		partner's label. Use the more restrictive guidelines.	

Corn Grass Weed Height Activity Table							
	(	Control	Supp	ression			
Tank Mix Partner	Accent®	Beacon®	Option®	Steadfast®			
Rate of Tank Mix Partner	. 0.67 oz.	0.76 oz.	1.5 – 1.75 oz.	0.75 oz.			
Weed Height	eed Height Inches Inches		Inches	Inches			
Barnyardgrass	arnyardgrass <u>&lt;4</u>		≤4				
Bromegrass, downy		`					
Smooth			_≤8				
Cupgrass, woolly	<u>4</u>		2				
Fescue, tall			_≤8				
Foxtails, giant	_≤4	1 – 2	_≤6	_≤4			
Yellow	<u>≤</u> 4 <u>≤</u> 4	1 - 2	୍ୟ ସ ସ ସ	_≤4			
Green	4	1 - 2	3	<u>&lt;</u> 4			
Bristly	_≤4	1 - 2		_≤4			
Goosegrass			4	≤2			
Johnsongrass, rhizome	≤18	8 - 16	≤16	8-12			
seedling	. ≤12	4 – 12	≤16	8 - 12			
Millet, wild proso	<u>_</u> 4			<u></u>			
Oats, wild	<u>≤</u> 4		≤6	≤2			
Orchardgrass			≤8				
Panicum, fall		<2		<u>&lt;</u> 4			
Panicum, Texas			≤2	≤4			
Quackgrass	≤10	4-8	≤10				
Ryegrass, Italian	_≤6	1-4	_≤8	<u></u>			
Sandbur, field	≤3	1-4	≤2	≤2			
Shattercane	≤12	4-12	≤12	_≤6			

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Signalgrass, broadleaf	1-2	≤2	≤2	
Wirestem muhly	_≤8	≤10	<u>&lt;</u> 4	]
Volunteer cereals		 ≤4	≤2	1

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
FRUITING VEGETABLES GROUP	1/2 - 1	30	Including but not limited to eggplant, peppers, tomatoes. Do not apply more than 2 oz. 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 – 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS				
Grain Sorghum (Milo)	⅔ − 1	Do not apply more than 1 oz. of this pr ingredient) per acre per use season. Fol foliage, allow 30 days before grazing d harvesting forage, or harvesting silage.					
	Sorghu	m Weed I	Height Activity	Table			
Weed Activity		Control		Suppression			
Rate of Product	<sup>2</sup> / <sub>3</sub> OZ.		1 oz.	<sup>2</sup> / <sub>3</sub> OZ.			
Weed Height	Inches	Inches		Inches			
Burcucumber	4			1 - 3			
Cocklebur, common	1 - 9						
Fleabane, Philadelphia	1 - 3						
Kochia <sup>1</sup>	1 - 3						
Lambsquarter, common				1 - 2			
Mallow, Venice	1 - 3						
Milkweed, common				3 - 5			
Milkweed, honeyvine				1 - 3			
Nutsedge: yellow <sup>2</sup>	3 - 6		3 - 12				
purple	3 - 6		3 - 12				
Passionflower, maypop	1 - 3						
Pigweed, redroot	1 - 3						

<sup>1</sup> See Pre-emergent and Post-emergent Weed Activity Tables.

1-6

1-9

1 - 3

1 - 2 1 - 12

1 - 9

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

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.

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Pokeweed, common Ragweed: common

Sunflower, common

Velvetleaf

Giant

Smartweed, Pennsylvania

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Tank Mixture Pa	artners	
2,4-D	Rate per Acre:	4 - 8 fl. oz.
(4 lbs. /gallon)	Spray Additive:	NIS
	Application Methods:	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.
	Improved Control:	Broadleaf weeds.
	Limitations:	Do not treat during the boot, flower or dough stage.
		Do not make applications when sorghum exceeds 15 inches.
Atrazine 4L	Rate per Acre:	1.5 – 3 pts. (0.75 to 1.5 lbs. active ingredient)
Herbicide	Spray Additive:	COC
	Application Methods:	Apply broadcast spray on sorghum up to 12 inches tall.
		Apply when broadleaf weeds are small (3 inches or less).
	Improved Control:	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.
	Limitations:	Atrazine mixtures may result in reduced control (antagonism) of larger
		broadleaf weeds.
		Smaller weeds are easier to control.
Buctril®	Rate per Acre:	0.5 - 1 pt.
Herbicide	Spray Additive:	NIS
	Application Methods:	Apply broadcast spray on sorghum.
	Improved Control:	For post-emergence control of annual broadleaf weeds.
Buctril®	Rate per Acre:	1 - 2.5 pts.
Herbicide plus	Spray Additive:	NIS
Atrazine	Application Methods:	Apply broadcast spray on sorghum.
	Improved Control:	For post-emergence control of annual broadleaf weeds.
1		

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
PUMPKINS AND WINTER SQUASH	/2 - 1	30	Do not make more than 2 applications per crop cycle. Do not apply more than 1 oz. 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 $\frac{1}{2}$ to $\frac{3}{4}$ 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. Use Rate:  $\frac{1}{2} - \frac{3}{4}$  oz.

#### **Direct-seeded:**

*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:** 

*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.

## Use Rate: 1/2-1 oz.

## For Processing Only - Direct-seeded:

*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:

*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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
RICE	2/3 - 1 1/3	<b>48</b> *	Do not make more than 3 applications (including pre-plant and at-planting applications) per year. Do not apply more than 1½ oz. of this product (0.062 lb. active ingredient) per acre per use year. After application to foliage, allow 30 days before grazing domestic livestock, harvesting forage, or harvesting silage. *Do not apply within 69 days of harvest in California. Avoid using this product on rice fields which have a history of weed biotypes tolerant to Londax® in order to ensure product effectiveness. For Direct Dry Applications by air: Do not apply to dry rice fields. Apply aerial applications at a maximum of no greater than ½ the wing span.
			Do not use a swath width greater than 120 feet. Do not mix this product with any other additives except as directed by this label. Do not apply within 360 feet of sensitive crops. Do not apply when wind speed is less than 3 mph or exceeds 15 mph.

·····		ed Height Activity Tat		
Weed Activity		ontrol		ression
Rate of Product	<sup>2</sup> / <sub>3</sub> OZ.	1 - 1½ oz.	<sup>2</sup> /3 OZ.	1 - 1 <sup>1</sup> / <sub>3</sub> oz.
Weed Height	Inches	Inches		Inches
Burcucumber			1 - 3	4 - 12
California Arrowhead		Yes		
Cocklebur, common	1 - 9	9 – 14		
Dayflower	1-2	3 - 4		
Eclipta	1 <sup>′</sup> - 4	4 - 8		
Flatsedge rice	1 - 9	9-12		
Fleabane, Philadelphia	1 - 3			
Jointvetch	1-2	3-4	· .	
Kochia <sup>1</sup>	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 <sup>2</sup>	1 - 6	6 - 12		
purple	1 - 6	6 - 12		
Passionflower, maypop	1 - 3			
Pigweed, redroot	1 - 3	4 - 6		

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Pokeweed, common	1-6			Τ
Radish, wild		4 - 6	 	1
Ragweed: common	1-9	9 - 12		1
Giant	1 - 3	4 - 6		
Redstem	1 - 3	Yes		
Ricefield Bulrush		Yes		٦.
Sesbania Hemp	1 - 3	3-6		
Sida, Prickly	1 - 2	3 - 4		
Smallflower Umbrellaplant		Yes		7
Smartweed, Pennsylvania	1 - 2			
Sunflower, common	1 - 12	12 - 15		٦
Velvetleaf <sup>3</sup>	1 - 9.	9 - 12		

<sup>1</sup> 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.

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

For post-emergent weed control, pre-planting, at-planting or prior to emergence of rice through the permanent flood, use  $\frac{2}{3}$  - 1  $\frac{1}{3}$  oz. of this product per acre per use season.

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.

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.

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®. Refer to the Tank Mixtures section of this label for additional guidance.

#### **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  $1 - 1\frac{1}{2}$  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

Tunn Mature I		
Glyphosate	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE at <sup>2</sup> / <sub>3</sub> oz. See Glyphosate
(various		label for its rates.
formulations)	Spray Additive:	NIS
	Application Methods:	Broadcast spray.
	Improved Control:	For pre-plant or at-planting burndown of emerged annual grasses, broadleaf weeds and nutsedge.
	Limitations:	If applied as a pre-plant burn down treatment, consult the Crop Rotational Guidelines of this product and the Glyphosate label.
Stam® M4 and	Rate per Acre:	Use HALOSULFURON 75WDG HERBICIDE at <sup>2</sup> / <sub>3</sub> - 1 <sup>1</sup> / <sub>3</sub> oz. See propanil
Propanil 4E	Improved Control:	labels for its rates.
(propanil)	Limitations:	Broader spectrum weed control.
		If applied as a pre-plant burn down treatment, consult the Crop Rotational Guidelines.

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Сгор	Rate Oz./Acre	PHI	LIMITATIONS
SUCCULENT SNAP BEANS (Including lima beans)	1/2 - 1	30	Do not apply more than 1 oz. 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). 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. Due to the risk of crop damage, all such use is at the end-user/grower's risk.

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. Use Rate:  $\frac{1}{2}$ -1 oz.

#### Direct-seeded:

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

*Row Middle/Furrow Applications* – 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. Use Rate:  $\frac{1}{2}$  oz.

#### Direct-seeded:

*Post-emergence* – 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.

Crop	Rate	PH	LIMITATIONS					
-	Oz./Acre	I						
SUGARCANE	2/3 - 1 1/3	30	Do not make more than 3 applications (including pre-plant					
			applications) per ye	ear.				
					roduct (0.125 lb. active			
			ingredient) per acre		•			
		1		o foliage, allow 30 da				
				harvesting forage, or	harvesting silage.			
	Sugar		eed Height Activity 7					
Weed Activity		Con			ression			
Rate of Product	²∕₃ oz.		1 - 1 <sup>1</sup> / <sub>3</sub> oz.	<sup>2</sup> / <sub>3</sub> OZ.	1 - 1 <sup>1</sup> / <sub>3</sub> oz.			
Weed Heig It	Inches		Inches	Inc 🗆 es	Inches			
Burcucumber		!		1 - 3	4 - 12			
Cocklebur, common	1 - 9		9-14					
Fleabane, Philadelphia	1-3							
Kochia <sup>1</sup>	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 <sup>2</sup>	3 - 6		3 - 12					
purple	3 - 6		3 - 12	·				
Passionflower, maypop	1 - 3							
Pigweed, redroot <sup>3</sup>	1 - 3		4 - 6					
Pokeweed, common	1 - 6							
Radish, wild			4 - 6					

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<u> </u>				0.10	<u></u>	· · · · · · · · · · · · · · · · · · ·		
Ragweed: comm		1 -		9 - 12				
Giant		1-		4 - 6	<u> </u>	·		
Smartweed, Pen		1 -		10 16	<u></u>			
Sunflower, com Velvetleaf <sup>2</sup>	mon	1 -		<u>12 - 15</u> 9 - 12	<u></u>			
See Pre-emerger	t and Deat a							
Heavy infestation earlier application For large velveth f used alone, app closure. Use mect sequential treatmon <b>Fank Mixture P</b> : 2,4-D amine 4 lbs. /gallon)	ns of nutsedg n is required. eaf and pigwo by this product chanical cultive artners Rate per Act Spray Addi Application Improved C Limitations Rate per Act	e require seque eed control, ap et prior to plan vation to contro weeds in areas ere: tive: Methods: Control: :	ential app ply with 1 ting, prion ol weed sp s of distur 2 - 4 p NIS Apply weeks Broad Do no 6 - 8 p	lications. To prevent liquid nitrogen fertiliz r to emergence or after becies not on this labe bed soil. pts. $(1 - 2 \text{ lbs. / active})$ to sugarcane before before harvest. leaf weeds. t make more than 3 a pts.	zer (2 – 4 qts. /acre) p er the emergence of th el. If mechanical cult e ingredient) crop emergence or po	beting with the crop an <u>plus NIS or COC.</u> The sugarcane and until row divation is used, apply a post-emergence until 6		
Herbicide	Spray Addir Application Improved C Limitations	tive: Methods: Control:	NIS on Apply before Broad	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	Rate per Ac	per Acre:		4 - 8 pts.				
Herbicide	Spray Addit		NIS or COC					
-	Application Improved C Limitations	Control:	Apply Post-en Aids in pre-en Atrazi broadl Smalle	mergence control of n the burndown and c nergence herbicide tr ne mixtures may resu eaf weeds. er weeds are easier to	ds are small (1.5 inch abeled broadleaf wee control of many grass eatments. ilt in reduced control			
Ametryn Herbicide	Rate per Ac Spray Addit Application	tive: Methods:	emerg	broadcast spray on s ence until row closur		emergence or post-		
	Improved C			leaf weeds and grasse		0.6017 Junio 11 11		
Glyphosate various formulations)	Limitations: Rate per Acre: Spray Additive: Application Methods:		Reduced efficacy occurs if temperatures exceed 85°F during application.See specific formulation label for its rates.NISApply as broadcast spray.For pre-plant burndown of emerged annual grasses, broadleaf weeds and					
	Improved C		For pro nutsed		anerged annual grass	es, proadlear weeds and		
Crop		Rate Oz./Acre	PHI	LIMITATIONS				
SUMMER SQUA PROCESSING	ASH FOR	1/2 - 1	30	cycle, not to excee	than 2 oz. of this pro d 2 oz. (0.094 lb. acti	oduct per acre per crop ive ingredient) per acre per to the crop and to Row		

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## Direct-seeded:

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

Use Rate: 1/2-1 oz.

#### **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. 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
Sweet Corn and Popcorn	2/3	30	The maximum application rate is $\frac{3}{3}$ oz. of this product. Two applications of this product are allowed per 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.

	Sweet Corn and Po	pcorn Weed Height Act
Weed Activity	Control	Suppression
Rate of Product	<sup>2</sup> / <sub>3</sub> OZ.	<sup>2</sup> / <sub>3</sub> OZ.
Weed Height	Inches	Inches
Burcucumber		1 - 3
Cocklebur, common	1 - 9	
Fleabane, Philadelphia	1 - 3	
Kochia	1 - 3	
Lambsquarter, common		1 - 2
Mallow, Venice	1 - 3	
Milkweed, common		3 - 5
Milkweed, honeyvine		1 - 3
Nutsedge: yellow <sup>2</sup>	3 - 6	
purple	3 - 6	
Passionflower, maypop	1 - 3	
Pigweed, redroot	1 - 3	<u>.</u>
Pokeweed, common	1 - 6	
Ragweed: common	1 - 9	
Giant	1 - 3	
Smartweed, Pennsylvania	1 - 2	
Sunflower, common	1 - 12	
Velvetleaf	1 - 9	

<sup>1</sup> 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.

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.

After application, avoid cultivation for at least 7 days. Apply a sequential treatment, if necessary, only with drop nozzles semi-directed or directed to avoid application into the corn plant whorl.

Not all sweet corn and popcorn hybrids or varieties have been tested for sensitivity to this product. The user assumes all responsibility for such use. 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. 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, do not apply this product.

Do not apply this product to sweet corn or popcorn previously treated with soil applied organophosphate insecticides. Do not apply an organophosphate insecticide within 7 days before or 3 days after any application of this product.

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Сгор	Rate Oz./Acre	PHI	LIMITATIONS
TOMATOES	1/2 - 1	30	Do not make more than 2 applications per crop cycle. Do not apply more than 2 oz. 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 20 gallons of water per acre. **Direct-seeded:** 

*Post-emergence* – 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. **Transplanted:** 

*Pre-transplant on Bareground* – 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.

*Pre-transplant under Plastic Mulch Applications* – 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. 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* – 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.

### **Direct-seeded and Transplant:**

*Pre-transplant followed by post-emergence for nutsedge control*— 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 <sup>3</sup>/<sub>4</sub> 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. Post-emergence Sequential Treatments for Nutsedge Control - 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.

*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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
TREE NUTS (almonds, beechnuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapins, filberts, hickory nuts, macadamia nuts, pecans, pistachios, walnuts {black and English})	<sup>2</sup> / <sub>3</sub> -1 <sup>1</sup> / <sub>3</sub>	1	Do not make more than 2 applications per acre per use season. Do not apply more than 2 <sup>3</sup> / <sub>3</sub> oz. of this product (0.125 lb. active ingredient) per acre per use season. 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.

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

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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.

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.

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. 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.

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.

**Restrictions:** Do not apply to gravely soils.

Do not use of controlled droplet applications, irrigation, or chemigation equipment for application of this product due to variations in the actual application rate.

## Precautions:

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.

Excessive application rates can result in severe tree injury or death.

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. All such risks shall be assumed by the user.

#### Tank Mixture Partner:

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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
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)	2/3 - 11/3		Do not make more than 4 applications per use season. Do not apply more than 5 <sup>1</sup> / <sub>3</sub> 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. Do not apply this product by air. * Not for use in OR and WA. In California: Do not make more than 2 applications per use season. Do not apply more than 2 <sup>3</sup> / <sub>3</sub> oz. of this product (0.25 lb. active ingredient) per acre per use season.

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 qts. per 100 gallons of spray suspension) for broadcast applications. For high volume applications, do not exceed 1 qt. of spray additive per acre. For spot applications, add 2 teaspoons (<sup>1</sup>/<sub>3</sub> fl. oz.) of nonionic surfactant per gallon of water. Use only nonionic surfactants which contain at least 80% active material. Refer to the spray additive label and observe all precautions, restrictions, mixing and application instructions.

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## Post-emergent Weed Activity Table HALOSULFURON 75 WDG HREBICIDE by Weed Species

Common Name	Scientific Name	Control	Suppression	Comments
	Kyllinga spp.		YES	
Nutsedge, Yellow	Cyperus esculentus	YES		Heavy infestation requires sequential applications.
Nutsedge, Purple	Cyperus rotundus	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 (<sup>1</sup>/<sub>3</sub> fluid ounce) of nonionic surfactant per gallon of water. Measured 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.

**[INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE PREMEASURED IN WATER SOLUBLE BAG:]** Use one (1) water soluble bag of this product per 1 - 2 gallons of water in a hand-held or backpack sprayer to treat 1,000 sq. ft. Add 2 teaspoons ( $\frac{1}{3}$  fl. oz.) of a nonionic surfactant per gallon of spray solution. 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  $\frac{2}{3}$  -  $\frac{1}{3}$  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  $\frac{2}{3}$  -  $\frac{1}{3}$  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.

**Restrictions:** Do not mow turfgrass for 2 days before or 2 days after application for best results. 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 rates.

#### **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.

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## **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.

Refer to the glyphosate formulation label for important information in regards to the use instructions, additive requirements, weeds controlled, the size range of weeds to be treated, and application restrictions. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

The user assumes the responsibility for following all label use directions.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
ROADSIDES, RIGHTS-OF-WAY, TANK FARMS, LUMBERYARDS, FUEL STORAGE AREAS, FALLOW NON-CROP LAND, AND FENCE ROWS	22/3		<ul> <li>Do not make more than 2 applications per 12-month.period.</li> <li>Do not apply more than 5<sup>1</sup>/<sub>3</sub> oz. of this product (0.25 lb. active ingredient) per acre per 12-month period.</li> <li>Do not apply this product through any type of irrigation system.</li> <li>Do not apply this product by air.</li> </ul>

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 HALOSULFURON 75 WDG HREBICIDE by Weed Species

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

Refer to the glyphosate formulation label for important information in regards to the use instructions, additive requirements, weeds controlled, the size range of weeds to be treated, and application restrictions. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture, combination.

The user assumes the responsibility for following all label use directions.

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Crop	Rate	PHI	LIMITATIONS
· · ·	Oz./Acre		and the second
WATERMELONS	1/2 - 1*	57	Only: AL, AR, AZ, <u>CA,</u> 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, <u>WA</u> , WV, WI.
			Do not apply more than 1 oz. 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 middle).

\* Use 1 oz. rate only for direct-seeded and transplant row middle applications.

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. Use Rate:  $\frac{1}{2} - \frac{3}{4}$  oz.

## Direct-seeded: Bare Ground

*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**

*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**

*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**

*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.

## Use Rate: 1/2-1 oz.

#### **Direct-seeded and Transplant:**

*Row Middle Applications* – For the treatment of nutsedge and labeled broadleaf weeds, use this product between rows of directseeded 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 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, Aceto Agricultural Chemicals Corporation 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.

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# TIME INTERVAL(MONTHS) BEFORE PLANTING AFTER USE OF HALOSULFURON 75WDG HERBICIDE

CROP	MONTHS	EXCEPTIONS
CROP NOT SPECIFICALLY	36	· · · · · · · · · · · · · · · · · · ·
LISTED		
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		
Corn, Sweet and Popcorn	3	For sweet corn and popcorn, the application rates of this
Coin, Sweet and Poptoin		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	
	<b>4</b> <b>9</b>	In the northeast and southeast: 2 months; In TX :3 months.
Cucumbers		
Eggplant	12	For FL transplants: 4 months.
Forage Grasses		In much soils areas of FL + 2 months
Lettuce Crops	18	In muck soils areas of FL: 3 months.
Melons	9	In southeast and TX: 2 months.
Mint	15	
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
Peppers	4	
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
and an and a		36 months; In MI: 21 months: In MN, ND, Red River Valley: 36
		months, an Mir. 21 months. In Mir, 10, and Alver Vancy. So
Sugaraana	.0	
Sugarcane		· ·
Sunflowers	18	1

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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.

8

2

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. [Add for water soluble packaging] Do not store at temperatures below 32° F (0° C). Rough handling may cause breakage, especially at low temperatures. Do not allow inner bag to become wet during storage. Do not handle inner bag with wet gloves.

**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 bottle packaging:]

**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 you 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.

# [Water Soluble Packaging:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely use water soluble bags in application equipment. Then offer for recycling if available, or dispose of empty foil pouch and cardboard box in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke.

# [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.

#### WARRANTY DISCLAIMER AND NOTICE

## **IMPORTANT: READ BEFORE USE**

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

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aceto Agricultural Chemicals Corporation. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Aceto Agricultural Chemicals Corporation is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ACETO AGRICULTURAL CHEMICALS CORPORATION'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Bullet, Harness Xtra, Harness Xtra 5.6L, Degree, Degree Xtra, Lasso and Micro-Tech are registered trademarks of Monsanto Corporation.

CHEMTREC is a registered trademark of American Chemical Society.

Bolero and Regiment are registered trademarks of Valent U.S.A. Corporation.

Clincher is a registered trademark of Dow Agro Sciences LLC.

Shark is a registered trademark of FMC Corporation.

Londax and Stam are registered trademarks of United Phosphorus Inc.

Made in China, packaged in USA

Advertising claims that may be present on the label:

- your sedge solution
- Easy Handling Formulation
- Excellent Nutsedge Control
- Tank Mix Compatible
- Economical and Effective
- Easy on Crop Tough on Nutsedge

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# **Turf Sub Label**

GROUP HERBICIDE

## HALOSULFURON 75WDG HERBICIDE

HALOSULFURON 75WDG HERBICIDE is an herbicide for selective pre-emergent and post-emergent control of listed weeds including both broadleaf weeds and nutsedge in turfgrasses (established lawns, ornamental turfgrass, landscaped areas, commercial and residential turfgrass), and other non-crop sites (including airports, cemeteries, fallow 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-ofway).

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

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

ACTIVE INGREDIENT:	% BY WT.
Halosulfuron-methyl	75% ·
OTHER INGREDIENTS:	<u>25%</u>
TOTAL	100%

EPA Reg. No. 2749-528 EPA Est. No. 065387-AR-001 Net Contents: 0.03 ounces (0.9 grams) [water-soluble bag] 1.3 ounces

Manufactured for: Aceto Agricultural Chemicals Corporation 4 Tri Harbor Court Port Washington, NY 11050

# 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)

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUSES MODERATE EYE IRRITATION. HARMFUL IF SWALLOWED. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

	First Aid
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call poison control center or physician for treatment advice.</li> </ul>
IF SWALLOWED:	<ul> <li>Call poison control center or physician immediately for treatment advice.</li> <li>Remove visible particles from mouth.</li> <li>Have person rinse mouth thoroughly with water, spit out rinse water.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>
Aceto Agricultural Chemicals C	Corporation HALOSULFURON 75WDG HERBICIDE July 15, 20

Notification Page 37 of 48 • 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 physician, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL CHEMTREC<sup>®</sup> TOLL FREE 1-800-424-9300 or 1-703-527-3887.

# 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:

- Remover 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.

FOR CHEMICAL SPILL, LEAK, FIRE, EXPOSURE OR MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL CHEMTREC<sup>®</sup> TOLL FREE 1-800-424-9300 or 1-703-527-3887.

# 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.

#### **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 Aceto 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.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

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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, such as nitrile rubber, neoprene rubber or polyethylene. For more options, follow instructions for category A (dry and water-based formulations) on an EPA chemical resistant category selection chart.

## 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**

HALOSULFURON 75WDG HERBICIDE 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.

HALOSULFURON 75WDG HERBICIDE is quick to act on targeted weeds by stunting growth allowing the crop to over take 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.

## **Resistant Management Guidance**

HALOSULFURON 75WDG HERBICIDE is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to HALOSULFURON 75WDG HERBICIDE and other Group 2 herbicides. Weed species with acquired resistance to Group 2 may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as primary method of control for target species. This may result in partial or total loss of control of those species by HALOSULFURON 75WDG HERBICIDE or other Group 2 herbicides.

To delay resistance consider:

- Avoiding the consecutive use of HALOSULFURON 75WDG HERBICIDE or other target site action Group 2 herbicides that have a similar target site of action, on the same weed species.
- Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.

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Contacting your local extension specialist, certified crop advisor, and/or manufacture and/ or integrated weed
management specialist for specific crops and resistant weed biotypes.

# **Mixing Instructions**

HALOSULURON 75WDG HERICIDE 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.

# [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 (<sup>1</sup>/<sub>2</sub> fluid ounce) of nonionic surfactant per gallon of water. Measured 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.

[INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE PREMEASURED IN WATER SOLUBLE BAG:] Use one (1) water soluble bag of this product per 1 - 2 gallons of water in a hand-held or backpack sprayer to treat 1,000 sq. ft. Add 2 teaspoons ( $\frac{1}{3}$  fl. oz.) of a nonionic surfactant per gallon of spray solution. 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.

## **Spray Additives**

Spray additives such as nonionic surfactant (NIS) are used with HALOSULFURON 75 WDG HERBICIDE 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). Always use NIS in the spray mixture.

For specific details, consult the use direction in crop section

#### **Use Rate Equivalency**

Since HALOSULFURON 75WDG HERBICIDE 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 an acre basis.

oz. of Product	lb. Active Ingredient	
per acre	per acre	
1/2	0.0235	
2/3	0.0233	
1	0.047	
11/3	0.062	
2	0.094	
22/3	0.125	
51/3	0.250	

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# **Application Methods**

Apply this product by ground to produce uniform coverage on growing weeds or soil to achieve consistent weed control. Loss in effectiveness or crop injury may result if weeds are under drought, stress, disease or insect damage.

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.

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

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 HALOSULFURON 75WDG HERBICIDE 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.

## Spray Drift Management

Do not allow this product to drift onto neighboring crops or non-crop area or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment – and weather – related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### 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 habits 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:

• Ground application shall not be made closer than 1 mile from sensitive crops unless wind direction during the application is away from sensitive crops. When wind direction during the ground application is away from sensitive crops, ground application shall not be made closer than 0.5 miles from sensitive crops.

## **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 HALOSULFURON 75WDG HERBICIDE. 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:

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- 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.

Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that are to be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

The user assumes the responsibility for following all label use directions.

If HALOSULFURON 75WDG HERBICIDE 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 1qt. 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 usual 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 concentrated (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 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 turf is under severe 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. Under these conditions, tank mixture applications may cause temporary turf injury.

Application Precautions

- Increase in turf 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.
- Avoid spraying when conditions favor rainfall or using overhead sprinkler irrigation within 4 hours of this application.

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- 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.
- The maturity of the turf may be delayed by use of this product.
- If the target weeds or turf are under stress due to drought, water saturated soils, low fertility (especially low nitrogen levels) or other poor growing conditions, do not use this product.
- Use nozzles and pressures that minimize the production of fine particles that drift outside of the targeted area.
- After use of this product, thoroughly clean application equipment immediately prior to spraying another crop.
- Applications of this product may cause temporary yellowing or stunting of the turf.
- 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 turf, bloom loss may occur under certain environmental conditions.

## 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 a second application may be needed to control later germination of weeds.

HALOSULFURON 75WDG HERBICIDE is quick to act on targeted weeds by stunting growth allowing the crop to over take 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 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.
  - o 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.
- 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.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
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	<sup>2</sup> / <sub>3</sub> - 1 <sup>1</sup> / <sub>3</sub>		<ul> <li>Do not make more than 4 applications per use season.</li> <li>Do not apply more than 5½ oz. of this product (0.25 lb. active ingredient) per acre per use season.</li> <li>Do not apply this product through any type of irrigation system.</li> <li>Do not apply this product by air.</li> <li>* Not for use in OR and WA.</li> <li>In California:</li> <li>Do not make more than 2 applications per use season.</li> <li>Do not apply more than 2½ oz. of this product (0.25 lb.</li> </ul>

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grounds, sod or turf seed farms*,	active ingredient) per acre per use season.
sports fields, landscaped areas with	
established woody ornamentals,	
fairgrounds, race tracks, tennis	
courts, campgrounds and rights-of-	
way)	

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 qts. per 100 gallons of spray suspension) for broadcast applications. For high volume applications, do not exceed 1 qt. of spray additive per acre. For spot applications, 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. Refer to the spray additive label and observe all precautions, restrictions, mixing and application instructions.

## Post-emergent Weed Activity Table HALOSULFURON 75 WDG HREBICIDE by Weed Species

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

**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<sup>1</sup>/<sub>3</sub> 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  $\frac{2}{3}$  -  $\frac{1}{3}$  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.

## Restrictions

Do not mow turfgrass for 2 days before or 2 days after application for best results. 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 rates.

**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.

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## **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.

Refer to the glyphosate formulation label for important information in regards to the use instructions, additive requirements, weeds controlled, the size range of weeds to be treated, and application restrictions. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

The user assumes the responsibility for following all label use directions.

Сгор	Rate Oz./Acre	PHI	LIMITATIONS
ROADSIDES, RIGHTS-OF-WAY, TANK FARMS, LUMBERYARDS, FUEL STORAGE AREAS, FALLOW NON-CROP LAND, AND FENCE ROWS	22/3		<ul> <li>Do not make more than 2 applications per 12-month period.</li> <li>Do not apply more than 5½ oz. of this product (0.25 lb. active ingredient) per acre per 12-month period.</li> <li>Do not apply this product through any type of irrigation system.</li> <li>Do not apply this product by air.</li> </ul>

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 HALOSULFURON 75 WDG HREBICIDE by Weed Species

Common Name	Scientific Name	Control	Suppression	Comments
Cocklebur, common	Xanthium strumarium		YES	
Horsetail	Equisetum arvense	YES	YES	Control if weeds are less than 6 inches tall. Suppression if weeds are greater than 6 inches tall
Pigweed, redroot	Amarunthus retroffiexus		YES	
Pigweed, smooth	Amaranthus hybridus	,	YES	
Ragweed, common	Ambrosia artemisiifolia		YES	
Ragweed, giant	Ambrosia trifida		YES	
Sunflower	Helianthus annuus		YES	
Velvetleaf	Abutilan the ophrasti		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.

Refer to the glyphosate formulation label for important information in regards to the use instructions, additive requirements, weeds controlled, the size range of weeds to be treated, and application restrictions. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

The user assumes the responsibility for following all label use directions.

# **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

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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, Aceto Agricultural Chemicals Corporation 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.

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CROP	MONTHS	EXCEPTIONS
CROP NOT SPECIFICALLY	36	
LISTED		
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	In much soms arous of FE, 5 months,
Clovers	<u> </u>	
Collards	18	
Corn, IR/IMR Field	0	
Corn, IT Field	0 1	
Corn, 11 Field	1	
	1 2	
Corn, Seed	3	For sweet corn and noncorn the application where fills
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.
	2	For FL transplants: 4 months.
Forage Grasses	18	In muck soils areas of FL: 3 months.
Lettuce Crops	9	
Melons	-	In southeast and TX: 2 months.
Mint	15	
Dats	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.
Peppers	4	
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.
		in much sons areas of FL, S months,

# TIME INTERVAL(MONTHS) BEFORE PLANTING AFTER USE OF HALOSULFURON 75WDG HERBICIDE

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. [Add for water soluble packaging] Do not store at temperatures below 32° F (0° C). Rough handling may cause breakage, especially at low temperatures. Do not allow inner bag to become wet during storage. Do not handle inner bag with wet gloves.

**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 bottle packaging:]

**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 <sup>1</sup>/<sub>4</sub> 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 you 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.

#### [Water Soluble Packaging:]

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely use water soluble bags in application equipment. Then offer for recycling if available, or dispose of empty foil pouch and cardboard box in a sanitary landfill, or by incineration, or by burning, if allowed by state and local authorities. If burned, stay out of smoke.

## WARRANTY DISCLAIMER AND NOTICE

# **IMPORTANT: READ BEFORE USE**

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

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS**: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aceto Agricultural Chemicals Corporation. To the extent consistent with applicable law all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Aceto Agricultural Chemicals Corporation is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ACETO AGRICULTURAL CHEMICALS CORPORATION'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Made in China, packaged in USA

Advertising claims that may be present on the label:

- your sedge solution
- Easy Handling Formulation
- Excellent Nutsedge Control
- Tank Mix Compatible
- Economical and Effective
- Easy on Crop Tough on Nutsedge

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