



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

November 6, 2025

Meshea J. Brodie
US Regulatory Team Leader
UPL NA Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

Subject: Label Amendment - Registration Review Mitigation for Oryzalin
Product Name: SURFLAN 75W WATER SOLUBLE PACKAGES
EPA Registration Number: 70506-42
Case Number: 477920
Application Dates: August 26, 2022

Dear Meshea J. Brodie:

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

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Julie R. Javier". The signature is fluid and cursive, with the first name "Julie" being the most prominent.

Julie Javier, Team Leader
Risk Mitigation and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

(Container Label)

Oryzalin	GROUP	3	HERBICIDE
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Surflan® 75W

Water Soluble Package

A selective preemergence surface-applied herbicide for control of annual grasses and many broadleaf weeds in:

- Landscape ornamentals
- Container grown ornamentals
- Field grown ornamentals
- Drainage areas under greenhouse benches
- Ornamental bulbs
- Ground covers
- Christmas tree plantations
- Noncropland
- Non-bearing trees and vines
- Industrial sites
- Established warm season turf (including Bahiagrass, Bermudagrass, Buffalograss, Centipedegrass, St. Augustinegrass, Tall Fescue and Zoysiagrass)

Active Ingredient:

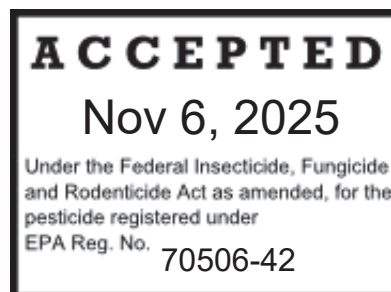
oryzalin: 3,5-dinitro-*N*⁴*N*⁴-

dipropylsulfanilamide 75%

Other Ingredients 25%

Total 100%

Contains 0.75 pounds of active ingredient per pound of product.



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 • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

Engineering Controls Statements

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

User Safety Recommendations

Users should:

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

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

For 24 hour emergency medical assistance, call Rocky Mountain Poison and Drug Safety: 1-866-673-6671..

For 24 hour chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC: 1-800-424-9300.

Environmental Hazards

This pesticide is toxic to fish. 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 disposing of equipment washwaters.

Groundwater Advisory

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

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use, including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read Conditions of Sale and Limitation of Warranty and Liability inside label booklet.**

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 70506-42

EPA Est. No.

UPL NA Inc.

**630 Freedom Business Center, Suite 402
King of Prussia, PA 19046
1-800-438-6071**

6 x 4 x 1.3 lb Water Soluble Packets

[Label Booklet]

Oryzalin	GROUP	3	HERBICIDE
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Surflan® 75W

Water Soluble Package

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Active Ingredient:

oryzalin: 3,5-dinitro-*N*⁴*N*⁴-

dipropylsulfanilamide 75%

Inert Ingredients 25%

Total 100%

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Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE) and User Safety Recommendations, and Directions for Use including Storage and Disposal.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

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[Page 2 of Booklet]

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes Moderate Eye Irritation • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

Engineering Controls Statements

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

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Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency medical assistance, call the National Pesticide Information Center at 1-800-858-7378

. For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Environmental Hazards

This pesticide is toxic to fish. 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 disposing of equipment washwaters.

Groundwater Advisory

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

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying

Handling Precautions for Water Soluble Packets

Do not remove water soluble packet from foil overpack except for immediate use. Do not allow water soluble packet to come in contact with water prior to use. Do not handle water soluble packet with wet hands. Carefully reseal package containing unopened foil pouches after use and protect package from moisture.

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Workers may enter treated areas without required PPE during the reentry interval following 1/2 to 1 inch of rainfall or irrigation, otherwise, PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

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.

Entry Restrictions for Non-WPS Uses: Keep all persons, children and pets out of treated area until sprays have dried.

WEED RESISTANCE MANAGEMENT

Mode of action

Surflan 75W Water Soluble Packaging contains the active ingredient oryzalin, which controls susceptible annual weeds by disrupting plant growth processes during seed germination.

Any weed population may contain or develop plants naturally resistant to Surflan 75W Water Soluble Packaging and other Group 3 herbicides. Weed species with acquired resistance to Group 3 may eventually dominate the weed population if Group 3 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Surflan 75 W Water Soluble Packaging or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted before and after application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes. Report any incidence of non-performance of this product against a particular weed species to your retailer or UPL NA representative.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

Pesticide Disposal: Wastes resulting from the use of this product may be used according to label directions or disposed of at an approved waste disposal facility.

Container Handling: nonrefillable container. Do not reuse or refill this container Offer for recycling if available or dispose of the empty outer pouch in the trash as long as WSP is unbroken.

General Information

Surflan 75W herbicide is a preemergence surface-applied herbicide for the control of annual grasses and many broadleaf weeds in ornamental plantings, bulbs, ground covers, established warm-season turfgrass, Christmas tree plantations, non-bearing trees and vines, non-cropland and industrial sites.

General Use Precautions and Restrictions

Surflan 75W will not control emerged weeds. Poor weed control may result if directions are not followed. Over-application may result in crop injury or excessive soil residue.

Surflan 75W is orange in color and may cause temporary discoloration of sprayed surfaces. If this discoloration is undesirable, it may be altered by using a commercially available colorant such as Blazon or removed by spraying surface with water or washing with an industrial cleaner immediately after application. Surflan 75W may also be applied with mulch colorants, such as Mulch Magic or Nu-Mulch.

Users who wish to use Surflan 75W on plant species not recommended on this label may determine the suitability for such uses by treating a small number of such plants at a recommended rate. Prior to treatment of larger areas, the treated plants should be observed for any sign of herbicidal injury for 30 to 60 days to determine if the treatment is selective to the target plant species. The user assumes responsibility for any crop damage or other liability resulting from use of Surflan 75W on plant species not recommended on this label.

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

Do not aerially apply this product.

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a coarse or coarser droplet size, according to the most current version of the American Society of Agricultural & Biological Engineers Standard 572 (ASAE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications

- Applications are required to use a medium or coarser droplet size for all applications, according to the most current version of the American Society of Agricultural & Biological Engineers Standard 572 (ASAE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application time.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

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

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

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

Soil Preparation

Surflan 75W will not control emerged weeds. Therefore, areas to be treated should be free of emerged weeds. Weed residues, prunings and trash should be thoroughly mixed into the soil or removed prior to treatment. In field applications, the soil should be in good tilth and free of clods at the time of application.

Mixing Directions**Surflan 75W - Alone**

Make sure spray tank is clean and use only clean water. **Fill spray tank 1/2 to 3/4 full.** Start agitation. Add the required number of water soluble packets to the spray tank. Allow time for complete mixing of Surflan 75W after packets have disintegrated. Continue agitation and fill spray tank to required spray volume. **Maintain continuous agitation from mixing through application.**

Surflan 75W Tank Mix Combinations

Prior to mixing, read and carefully follow all label instructions and precautions for each product added to the tank mixture. Vigorous, continuous agitation is required for all Surflan 75W tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks.

Precaution: Do not allow the spray mixture to siphon back into the water source.

Mixing Order: Fill the tank 3/4 full with clean water. Start agitation and add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products.

Add different formulation types in the following order: dry flowables (DF); Surflan 75W and other wettable powders (WP); aqueous suspensions (AS), flowables (F) and liquids (L); solutions (S); and emulsifiable concentrates (EC).

Continue agitation and finish filling the spray tank with clean water. Maintain agitation until application is completed. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be completely resuspended before spraying is continued. A sparger agitator is particularly useful for this purpose.

Premixing: When tank mixing, initial mixing and dispersion of certain dry flowable or wettable powder products may be improved by premixing with water (slurrying). Adding the slurried material to the spray tank through a 20 or 35 mesh wetting screen will help assure good initial dispersion. Line screens in the tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

Application Methods

Ground Application

Apply Surflan 75W as a directed spray to the soil surface or overtop of plants using a vehicle-mounted or pull-type sprayer. Apply the appropriate rate of Surflan 75W as outlined in "Approved Uses" section of this label. In all cases, use sufficient water volume to obtain uniform coverage and deliver the desired rate of Surflan 75W to the treated area. **The volume of water used is not critical, as long as the desired rate of Surflan 75W is delivered uniformly across the area treated. When calibrating, determine the volume of water delivered by the sprayer to a given area (1,000 sq ft, acre, etc.). Then mix the desired rate of Surflan 75W in the amount of water required to cover the entire area to be treated.** Use only a properly calibrated, low-pressure herbicide sprayer that will apply the spray uniformly. Use herbicide tips with screens no finer than 50 mesh in nozzles and in-line strainers. As the amount of water used (spray volume) decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to ensure proper calibration and uniform application. Maintain continuous agitation from mixing through application. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application.

Activation and Cultivation

Surflan 75W will remain stable on the soil surface up to 21 days following application. In the absence of timely rainfall, irrigation can be used to activate Surflan 75W. A minimum of one-half (1/2) inch of rain or its equivalent in sprinkler irrigation is necessary to activate Surflan 75W. If weeds begin to emerge due to lack of rainfall or irrigation, shallow cultivate 1 to 2 inches deep to destroy existing weeds or remove them by hand. Shallow cultivation to a depth of 1 to 2 inches will enhance herbicidal effectiveness. If Surflan 75W is not activated by rainfall, irrigation or cultivation within 21 days of application or existing weeds have not been removed, erratic weed control may result.

Weeds Controlled by Surflan 75W

Annual Grasses:

Common Name	Scientific Name
barley, little	<i>Hordeum pusillum</i>
barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>
bluegrass, annual	<i>Poa annua</i>
crabgrass, large	<i>Digitaria sanguinalis</i>
crabgrass, smooth	<i>Digitaria ischaemum</i>
crowfootgrass	<i>Dactyloctenium aegyptium</i>
cupgrass, southwestern	<i>Eriochloa gracilis</i>
foxtail, bristleglass	<i>Setaria magna</i>

foxtail, giant	<i>Setaria faberi</i>
foxtail, green (pigeongrass)	<i>Setaria viridis</i>
foxtail, robust	<i>Setaria robusta</i>
foxtail, yellow	<i>Setaria glauca</i>
goosegrass (silver crabgrass)	<i>Eleusine indica</i>
johnsongrass (seedling only)	<i>Sorghum halepense</i>
junglerice	<i>Echinochloa colonum</i>
lovegrass, Mexican	<i>Eragrostis mexicana</i>
lovegrass, orcutt	<i>Eragrostis orcuttiana</i>
oat, wild	<i>Avena fatua</i>
panicum, browntop	<i>Panicum fasciculatum</i>
panicum, fall (spreading panicgrass)	<i>Panicum dichotomiflorum</i>
panicum, texas (buffalograss) (Coloradograss)	<i>Panicum texanum</i>
ryegrass, italian	<i>Lolium multiflorum</i>
sandbur, field	<i>Cenchrus incertus</i>
signalgrass (brachiana)	<i>Brachiaria</i> spp.
sprangletop, red	<i>Leptochloa filiformis</i>
witchgrass	<i>Panicum capillare</i>

Broadleaf Weeds:

Common Name	Scientific Name
bittercress	<i>Cardamine oligosperma</i>
carpetweed	<i>Mollugo verticillata</i>
chickweed, common	<i>Stellaria media</i>
fiddleneck, coast	<i>Amsinckia intermedia</i>
filaree, redstem	<i>Erodium cicutarium</i>
filaree, whitestem	<i>Erodium moschatum</i>
groundsel, common	<i>Senecio vulgaris</i>
henbit	<i>Lamium amplexicaule</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
lambsquarters	<i>Chenopodium album</i>
pigweed, prostrate	<i>Amaranthus blitoides</i>
pigweed, redroot	<i>Amaranthus retroflexus</i>
pigweed, spring	<i>Amaranthus hybridus</i>
pigweed, tumble	<i>Amaranthus albus</i>
puncturevine	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida (Florida purslane) (Mexican clover) (pusley)	<i>Richardia scabra</i>
rocket, London	<i>Sisymbrium irio</i>
rockpurslane, desert	<i>Calandrinia ciliata</i>
shepherdspurse	<i>Capsella bursa-pastoris</i>
spurge, prostrate	<i>Euphorbia humistrata</i>
woodsorrel, yellow	<i>Oxalis stricta</i>

Weeds Suppressed by Surflan 75W

Control of the following weeds may be erratic, ranging from poor to excellent, depending upon soil temperature, time of germination, depth of seed in the soil, and amount and timing of soil moisture:

Common Name	Scientific Name
horseweed	<i>Conyza canadensis</i>
ladysthumb	<i>Polygonum persicaria</i>
lettuce, prickly	<i>Lactuca serriola</i>
mallow, common	<i>Malva neglecta</i>
milkweed, climbing	<i>Sarcostemma cynanchoides</i>
morningglory	<i>Ipomoea</i> spp.
mustard, black	<i>Brassica nigra</i>
mustard, wild	<i>Brassica kaber</i>
nightshade, black	<i>Solanum nigrum</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
smartweed	<i>Polygonum pensylvanicum</i>
sowthistle, annual	<i>Sonchus oleraceus</i>
spurge, spotted	<i>Euphorbia maculata</i>
teaweed (prickly sida)	<i>Sida spinosa</i>
velvetleaf	<i>Abutilon theophrasti</i>
wheat, volunteer	<i>Triticum</i> spp.

Approved Uses

Ornamental Plantings

Special Use Precautions:

Apply only to established plantings. Established plants are defined as those that have been transplanted into their growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation.

To avoid possible injury, do not apply Surflan 75W to:

- Either nursery seedbeds or forest or Christmas tree seedling transplant beds.
- Unrooted liners or cuttings that have been planted in pots for the first time.
- Pots less than four inches wide.
- Ground covers until they are established and well rooted.
- Ornamental plantings where there is likelihood of runoff onto lawn areas.
- Areas containing dichondra or cool season turfgrass species.

Rooted liners should be removed from their original growing containers and placed in new containers at least two weeks prior to treatment or injury may occur.

For soils treated with Surflan 75W during the previous season, plant only the ornamental species listed on this label or injury may occur.

Ice Plant: When establishing unrooted ice plant (*Mesembryanthemum crystallinum* and *Carpobrotus edulis*) on coarse soils in landscape plantings, use only the 2 packet per acre rate of Surflan 75W or crop injury may occur. After the ice plant is well established, a second application may be made.

Broadcast Application Rates

Labeled Use Site	Length of Control	Surflan 75W		Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
		(lb/acre)	(packets/acre)		

Landscape Ornamentals	2 - 4 months	2.6	2	2	10.7
	3 - 6 months	4	3	4	16
	4 - 8 months	5.2	4	4	16
Field-grown and container-grown ornamentals	2 - 4 months	2.6	2	3	10.7
	3 - 6 months	4	3	3	16
	4 - 8 months	5.2	4	3	16

Recommended Species Including Fruit Plant Nursery Liners

Surflan 75W is recommended for use on certain container- and field-grown established ornamental plants, trees and shrubs; established ground covers; field grown fruit tree and shrub nursery liners; and in the production of ornamental bulbs (See "Ornamental Bulbs" for special use directions).

Do not apply Surflan 75W to the following plant species when container grown or field grown or injury may occur:

Deutzia gracilis (slender deutzia)
Pseudotsuga menziesii (Douglas-fir)
Thuja occidentalis 'Techny' (Techny arborvitae)
Tsuga canadensis (eastern hemlock)

Surflan 75W May be Used on the Following Field- and Liner[†]- Grown Plants and Plants in Landscape Plantings:

[†]Plants transplanted for additional growth before transplanting to final growing location.

Common Name	Scientific Name
abelia, glossy	<i>Abelia grandiflora</i>
acacia, prostrate	<i>Acacia redolens</i>
agave	<i>Agave macroculmis</i>
andromeda	<i>Pieris japonica</i>
apple	<i>Malus</i> spp.
arborvitae, American	<i>Thuja occidentalis</i>
arborvitae, Oriental	<i>Platycladus orientalis</i>
ash <i>Fraxinus</i> spp.	
aster, stokes	<i>Stokesia laevis</i>
astilbe/false spirea	<i>Astilbe chinensis</i> and <i>A. chinensis hybrids</i>
azalea	<i>Rhododendron</i> spp.
baby's breath	<i>Gypsophila paniculata</i>
barberry, Japanese	<i>Berberis thunbergii</i>
bellflower	<i>Campanula elatines</i>
birch, river	<i>Betula nigra</i>
birch, white	<i>Betula pendula</i>
bird of paradise	<i>Strelitzia reginae</i>
blazing star	<i>Liatris spicata</i>
bleeding heart	<i>Dicentra spectabilis</i>
bottlebrush, lemon	<i>Callistemon citrinus</i>
boxwood, common	<i>Buxus sempervirens</i>
boxwood, Japanese	<i>Buxus microphylla japonica</i>
brush cherry	<i>Syzygium paniculata</i>
caladium, fancy leafed	<i>Caladium bicolor</i>
California laurel	<i>Umbellularia californica</i>
campanula (bellflower)	<i>Campanula</i> spp.
cape marigold	<i>Dimorphotheca</i> spp.
carpet bugle	<i>Ajuga</i> spp.
cassia, feathery	<i>Cassia artemisioides</i>
cherry, Mahaleb	<i>Prunus mahaleb</i>
cherry, sweet	<i>Prunus avium</i>

chrysanthemum, florists	<i>Chrysanthemum morifolium</i>
cleystera, Japanese	<i>Cleyera japonica</i>
coneflower, purple	<i>Echinacea purpurea</i>
coreopsis	<i>Coreopsis lanceolata</i>
cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
cotoneaster, brightbead	<i>Cotoneaster buxifolius</i>
cotoneaster, cranberry	<i>Cotoneaster apiculatus</i>
cotoneaster, parney	<i>Cotoneaster lacteus</i>
cotoneaster, Pyrenees	<i>Cotoneaster congestus</i>
cotoneaster, rock	<i>Cotoneaster horizontalis</i>
cotoneaster, rockspray	<i>Cotoneaster microphyllus</i>
cottonwood	<i>Populus deltoides</i>
(grown for pulp)	
coyotebush, dwarf	<i>Baccharis pilularis</i>
crape myrtle, common	<i>Lagerstroemia indica</i>
cryptomeria, Japanese	<i>Cryptomeria japonica</i>
cypress, Arizona	<i>Cupressus arizonica (glabra)</i>
cypress, Italian	<i>Cupressus sempervirens</i>
daisy, gloriosa	<i>Rudbeckia hirta</i>
(black-eyed Susan)	
daisy, painted	<i>Chrysanthemum coccineum</i>
daisy, shasta	<i>Chrysanthemum maximum</i>
daisy, trailing African	<i>Osteospermum fruticosum</i>
daylily	<i>Heemerocallis spp.</i>
dogwood, flowering	<i>Cornus florida</i>
dogwood, kousa	<i>Cornus kousa</i>
eastercactus	<i>Rhipsalidopsis gaertneri</i>
escallonia	<i>Escallonia exoniensis</i>
eucalyptus, mealy	<i>Eucalyptus cinerea</i>
eucalyptus, narrow-leaved	<i>Eucalyptus nicholii</i>
eucalyptus, red	<i>Eucalyptus sideroxylon</i>
euonymus, evergreen	<i>Euonymus japonica</i>
euonymus, stringybark	<i>Euonymus fortunei</i>
euonymus, winged	<i>Euonymus alata</i>
falsecypress, Lawson	<i>Chamaecyparis lawsoniana</i>
fatshedera	<i>Fatshedera lizei</i>
fir, alpine	<i>Abies lasiocarpa</i>
fir, balsam	<i>Abies balsamea</i>
fir, fraser	<i>Abies fraseri</i>
fir, grand	<i>Abies grandis</i>
fir, Vietch	<i>Abies veitchi</i>
fir, white	<i>Abies concolor</i>
firethorn	<i>Pyracantha, fortuneana</i>
firethorn, formosa	<i>Pyracantha skoidzumi</i>
firethorn, scarlet	<i>Pyracantha coccinea</i>
forsythia, border	<i>Forsythia intermedia</i>
gardenia	<i>Gardenia jasminoides</i>
gazania, trailing	<i>Gazania rigens leucolaena</i>
geranium (Pelargonium)	<i>Pelargonium hortorum</i>
geum	<i>Geum quellyon</i>
ginkgo	<i>Ginkgo biloba</i>
garden gladiolus	<i>Gladiolus hortulanus</i>
goldenrain tree	<i>Koelreuteria paniculata</i>
heavenly bamboo (Nandina)	<i>Nandina domestica</i>
hibiscus, Chinese	<i>Hibiscus rosa-sinesis</i>
holly, Chinese	<i>Ilex cornuta</i>
holly, English	<i>Ilex aquifolium</i>
holly, Japanese	<i>Ilex crenata</i>

honeysuckle, Japanese	<i>Lonicera japonica</i>
honeysuckle, Mexican	<i>Justicia spicigera</i>
hopseedbush, clammy	<i>Dodonaea viscosa</i>
ice plant	<i>Mesembryanthemum crystallinum</i>
(See precautions for ornamental plantings)	
ice plant, largeleaf	<i>Carpobrotus edulis</i>
(See precautions for ornamental plantings)	
impatiens (busy lizzie)	<i>Impatiens wallerana</i>
iris, bearded	<i>Iris</i> spp.
ivy, Algerian	<i>Hedera canariensis</i>
ivy, English	<i>Hedera helix</i>
jerseytea, redroot	<i>Ceanothus americanus</i>
juniper	<i>Juniperus</i> spp.
kumquat	<i>Fortunella</i> spp.
laurel, mountain	<i>Kalmia latifolia</i>
laurelcherry, Carolina	<i>Prunus caroliniana</i>
laurelcherry, English	<i>Prunus laurocerasus</i>
leucothoe, coast	<i>Leucothoe axillaris</i>
leucothoe, drooping	<i>Leucothoe fontanesiana</i>
lilac, common	<i>Syringa vulgaris</i>
lily, plantain	<i>Hosta</i> spp.
lilyturf, bigblue	<i>Liriope muscari</i>
lily-of-the-Nile	<i>Agapanthus africanus</i>
linden, little leaf	<i>Tilia cordata</i>
magnolia, southern	<i>Magnolia grandiflora</i>
manzanita, Stanford	<i>Arctostaphylos stanfordiana</i>
maple	<i>Acer</i> spp.
marigold	<i>Tagetes</i> spp.
mockorange	<i>Philadelphus</i> spp.
moss, rose	<i>Portulaca grandiflora</i>
myoporum, prostrate	<i>Myoporum parvifolium</i>
myrtle, true	<i>Myrtus communis</i>
oak <i>Quercus</i> spp.	
oleander	<i>Nerium oleander</i>
orange, ornamental	<i>Citrus</i> spp.
Oregon grape	<i>Mahonia aquifolium</i>
osmanthus, holly-leaf	<i>Osmanthus heterophyllus</i>
Palo Verde, blue	<i>Cercidium floridum</i>
pansy	<i>Viola wittrockiana</i>
pear	<i>Pyrus communis</i>
pecan, ornamental	<i>Carya</i> spp.
periwinkle, bigleaf	<i>Vinca major</i>
periwinkle, dwarf	<i>Vinca minor</i>
petunia	<i>Petunia</i> spp.
photinia	<i>Photinia fraseri</i>
pine	<i>Pinus</i> spp.
pittosporum	<i>Pittosporum</i> spp.
privet, amur	<i>Ligustrum amurense</i>
privet, glossy	<i>Ligustrum lucidum</i>
privet, golden	<i>Ligustrum vicaryi</i>
privet, Japanese	<i>Ligustrum japonicum</i>
protea	<i>Protea neriifolia</i>
ranunculus, Persian	<i>Ranunculus asiaticus</i>
redbud	<i>Cercis canadensis</i>
redcedar, eastern	<i>Juniperus virginiana</i>
redcedar, western	<i>Thuja plicata</i>
redwood, coast	<i>Sequoia sempervirens</i>
raphiolepis (India hawthorn)	<i>Raphiolepis indica</i>

rhododendron	<i>Rhododendron</i> spp.
rose	<i>Rosa</i> spp.
rose-of-Sharon (Shrubalthea)	<i>Hibiscus syriacus</i>
Russian olive	<i>Elaeagnus angustifolia</i>
sage	<i>Salvia</i> spp.
shrimp plant	<i>Justicia brandegeana</i>
snapdragon	<i>Antirrhinum majus</i>
sotol, desert spoon	<i>Dasylium wheeleri</i>
spruce, black	<i>Picea mariana</i>
spruce, Colorado	<i>Picea pungens</i>
spruce, Englemann	<i>Picea engelmannii</i>
spruce, Norway	<i>Picea abies</i>
spruce, white	<i>Picea glauca</i>
star jasmine, Chinese	<i>Trachelospermum jasminoides</i>
stonecrop	<i>Sedum brevifolium</i>
sumac, African	<i>Rhus lancea</i>
sweetgum, American	<i>Liquidambar styraciflua</i>
sweet William	<i>Dianthus barbatus</i>
tobira	<i>Pittosporum tobira</i>
trumpet vine, violet	<i>Clytostoma callistegioides</i>
viburnum, Laurustinus	<i>Viburnum tinus</i>
virburnum, Sandankwa	<i>Virburnum suspensum</i>
weigela, oldfashioned	<i>Weigela florida</i>
wintercreeper	<i>Euonymus fortunei</i>
xylosma, Japanese	<i>Xylosma congestum</i>
yarrow	<i>Achillea</i> spp.
yaupon	<i>Ilex vomitoria</i>
yew <i>Taxus media</i>	
yew, Japanese	<i>Taxus cuspidata</i>
yewpine	<i>Podocarpus macrophyllus</i>
yucca, pendulous	<i>Yucca recurvifolia</i>
yucca, soaptree	<i>Yucca elata</i>
zinnia, common	<i>Zinnia elegans</i>

Surflan 75W May be Used on the Following Container-Grown Plants:

Common Name	Scientific Name
andromeda	<i>Pieris japonica</i>
arborvitae, American	<i>Thuja occidentalis</i>
arborvitae, Oriental	<i>Platycladus orientalis</i>
astilbe/false spirea	<i>Astilbe chinensis</i> and
barberry, Japanese	<i>Berberis thunbergii</i>
bellflower	<i>Campanula elatines</i>
blazing star	<i>Liatris spicata</i>
bleeding heart	<i>Dicentra spectabilis</i>
bottlebrush, lemon	<i>Callistemon citrinus</i>
boxwood, common	<i>Buxus sempervirens</i>
brush cherry	<i>Syzygium paniculata</i>
cleyera, Japanese	<i>Cleyera japonica</i>
cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
cotoneaster, cranberry	<i>Cotoneaster apiculatus</i>
cotoneaster, parney	<i>Cotoneaster lacteus</i>
cotoneaster, rock	<i>Cotoneaster horizontalis</i>
crape Myrtle, common	<i>Lagerstroemia indica</i>
cryptomeria, Japanese	<i>Cryptomeria japonica</i>
cypress, Arizona	<i>Cupressus arizonica (glabra)</i>
cypress, Italian	<i>Cupressus sempervirens</i>
daylily	<i>Hemerocallis</i> spp.

dogwood, kousa	<i>Cornus kousa</i>
eastercactus	<i>Rhipsalidopsis gaertneri</i>
escallonia	<i>Escallonia exoniensis</i>
euonymus, evergreen	<i>Euonymus japonica</i>
euonymus, stringybark	<i>Euonymus fortunei</i>
fatshedera	<i>Fatshedera lizei</i>
firethorn	<i>Pyracantha, fortuneana</i>
firethorn, formosa	<i>Pyracantha skoidzumi</i>
firethorn, scarlet	<i>Pyracantha coccinea</i>
gardenia	<i>Gardenia jasminoides</i>
ginkgo	<i>Ginkgo biloba</i>
holly, Chinese	<i>Ilex cornuta</i>
holly, Japanese	<i>Ilex crenata</i>
jerseytea, redroot	<i>Ceanothus americanus</i>
juniper	<i>Juniperus</i> spp.
kumquat	<i>Fortunella</i> spp.
lilac, common	<i>Syringa vulgaris</i>
lilyturf, bigblue	<i>Liriope muscari</i>
lily-of-the-Nile	<i>Agapanthus africanus</i>
linden, little leaf	<i>Tilia cordata</i>
mockorange	<i>Philadelphus</i> spp.
myrtle, true	<i>Myrtus communis</i>
oak <i>Quercus</i> spp.	
oleander	<i>Nerium oleander</i>
orange, ornamental	<i>Citrus</i> spp.
pecan, ornamental	<i>Carya</i> spp.
photinia	<i>Photinia fraseri</i>
pine	<i>Pinus</i> spp.
pittosporum	<i>Pittosporum</i> spp.
privet, amur	<i>Ligustrum amurense</i>
privet, glossy	<i>Ligustrum lucidum</i>
privet, golden	<i>Ligustrum vicaryi</i>
privet, Japanese	<i>Ligustrum japonicum</i>
redbud	<i>Cercis canadensis</i>
raphiolepis (India hawthorn)	<i>Raphiolepis indica</i>
rhododendron	<i>Rhododendron</i> spp.
russian olive	<i>Elaeagnus angustifolia</i>
shrimp plant	<i>Justicia brandegeana</i>
spruce, Colorado	<i>Picea pungens</i>
sumac, African	<i>Rhus lancea</i>
sweetgum, American	<i>Liquidambar styraciflua</i>
trumpet vine, violet	<i>Clytostoma callistegioides</i>
viburnum, Laurustinus	<i>Viburnum tinus</i>
wintercreeper	<i>Euonymus fortunei</i>
yaupon	<i>Ilex vomitoria</i>
yucca, soaptree	<i>Yucca elata</i>

Surflan 75W May be Used on the Following Field Grown Fruit Plant Nursery Liners[†]:

almond	grapefruit	pear
apple	kiwi	pecan
apricot	lemon	pistachio
avacado	macadamia nut	plum
cherry	nectarine	pomegranate
fig	olive	Prune
filbert	orange	walnut, English
grape		

Small Fruits:

blackberry	currant	gooseberry
blueberry	dewberry	loganberry
boysenberry	elderberry	raspberry

†Plants transplanted for additional growth before transplanting to final growing location.

Tank Mix Combinations

Tank mix combinations of Surflan 75W plus glyphosate, and many other labeled herbicides may be used to control undesirable vegetation in ornamental areas. Surflan 75W may also be tank mixed with Gallery* herbicide (California registration pending) and applied preemergence to broaden the spectrum of broadleaf weed control in ornamental areas. Applied as directed, these tank mixes of Surflan 75W will provide control of susceptible weed species listed on the respective labels. Refer to tank mix product labels for specific use directions, precautions and limitations before use.

Surflan 75W Plus glyphosate: Tank mix combinations of Surflan 75W plus glyphosate are recommended to control existing undesirable vegetation. Applied as directed, Surflan 75W plus glyphosate will provide postemergence control of susceptible weed species listed on the glyphosate label and residual preemergence control of susceptible weed species listed on the Surflan 75W label. Refer to the glyphosate label for specific use directions, precautions and limitations before use.

Precautions:

Do not apply sprays containing glyphosate over the top of ornamental plants.

Extreme care must be exercised to prevent contact of sprays containing glyphosate with foliage and stems of turfgrasses, trees, shrubs, or other desirable vegetation since severe damage or death may result.

Note: If spraying with glyphosate in areas adjacent to desirable plants, use a shield to prevent spray from contacting foliage and stems of desirable plants.

Ornamental Bulbs

Surflan 75W may be applied for control of susceptible annual weeds in ornamental bulbs, e.g., bulbous iris, daffodil (narcissus), hyacinth and tulip. Apply Surflan 75W to the soil surface 2 to 4 weeks after planting, but prior to the emergence of annual weeds. For fall planted bulbs, apply Surflan 75W again in late winter or early spring to weed-free soil surfaces.

Special Use Precautions:

Do not apply to tulip plants that have emerged to a height greater than 3/4 inch.

Do not apply to gladioli corms prior to emergence or less than one inch in diameter.

Broadcast Application Rates

Time of Application	Soil Texture	Surflan 75W		Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
		(lb/acre)	(packets/acre)		
Fall	Coarse	1	0.75	3	2
Fall	Medium and Fine	2	1.5	3	3
Feb. - Mar.	All Soil Textures	1	0.75	3	3

Greenhouse Areas

Surflan 75W may be applied to drainage areas under benches in open greenhouse-type structures. Do not apply in enclosed greenhouses or in enclosed shade house-type structures. Do not apply within three weeks prior to enclosure in greenhouse-type structures.

Christmas Tree Plantations

Surflan 75W Alone

Apply Surflan 75W as a directed spray to the soil surface or as an overtop spray to established plantings of field grown Christmas tree species, including fir (*Abies* spp.), pine (*Pinus* spp.), and spruce (*Picea* spp.). Do not apply to Douglas-fir (*Pseudotsuga menziesii*). Do not apply to seedbeds or seedling transplant beds. Apply only to established plantings. Established plants are defined as those that have been transplanted into their final growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation. Follow all instructions provided in the "General Information" section of this label.

Broadcast Application Rates

Length of Control	Surflan 75W		Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
	(lb/acre)	(packets/acre)		
2 - 4 months	2.6	2	2	10.6
4 - 8 months	5.2	4	2	10.6

Tank Mix Combinations

Tank mix combinations of Surflan 75W plus other labeled herbicides may be used as directed or overtop sprays in established Christmas tree plantings. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions and limitations before use.

Surflan 75W Plus glyphosate: Apply tank mix combinations of Surflan 75W plus glyphosate only as directed sprays in Christmas tree plantings. When applied according to use directions, Surflan 75W plus glyphosate will provide postemergence control of susceptible weed species listed on the glyphosate label and residual preemergence control of susceptible weed species listed on the Surflan 75W label. Refer to the glyphosate label for specific use directions, precautions and limitations before use.

Precautions:

Do not apply sprays containing glyphosate over the top of Christmas tree plantings. Extreme care must be exercised to avoid contact of spray containing glyphosate with foliage and stems of Christmas trees or severe damage or death may result.

Noncropland Areas and Industrial Sites

Noncropland Areas -- Tank Mix Combinations

Tank mix combinations of Surflan 75W plus glyphosate and many other labeled herbicides may be used to control undesirable vegetation in noncropland areas. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions and limitations before use.

Broadcast Application Rates

Length of Control	Surflan 75W		Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
	(lb/acre)	(packets/acre)		
2 - 4 months	2.6	2	2	6
4 - 8 months	5.2	4	4	12
8 - 12 months	8	6	4	12

Industrial Sites -- Tank Mix Combinations

Tank mix combinations of Surflan 75W plus glyphosate, Spike and many other labeled herbicides may be used as overtop sprays to control existing vegetation on industrial sites such as utility substations, highway guard rails, sign posts and delineators. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions and limitation before use.

Warm Season Turfgrasses

Surflan 75W may be applied as a preemergence treatment for control of annual grasses and certain broadleaf weeds in established warm season turf including bahiagrass, bermudagrass, buffalograss, centipedegrass, St. Augustinegrass and zoysiagrass or established tall fescue growing in warm season areas. Established turf is defined as a dense turf having a well-anchored root system and healthy, vigorous top growth. Surflan 75W may be tank mixed with Gallery herbicide and applied preemergence to broaden the spectrum of broadleaf weed control in warm season turf. Refer to the label of Gallery for specific use directions, precautions, and limitations before use.

Successful preemergence control of weeds listed on this label requires that Surflan 75W be applied prior to weed germination and be activated by at least one-half (1/2) inch of rainfall or irrigation within 21 days of application.

Special Use Precautions:

To avoid possible injury, do not apply Surflan 75W to:

- Cool season turfgrass species.
- Golf course putting greens or tees or lawns containing dichondra or cool season turfgrass species.
- Newly sprigged or sodded areas of bermudagrass, St. Augustinegrass, centipedegrass, or zoysiagrass until these turfs are well-established and have well-anchored root systems.
- Newly hydromulched areas of bermudagrass until such areas are well-established.
- Bermudagrass variety "Sun Turf" when tank mixed with atrazine.

Surflan 75W will not control emerged weeds.

Any cultural practices that disturb the soil, such as aerification or verticutting, should be done prior to application of Surflan 75W.

Surflan 75W may injure turf that is not well-established or is stressed or weakened due to unfavorable winter climatic conditions, drought, nematodes, or other factors which damage or weaken turf. Apply Surflan 75W only to healthy, well-established turf that is well-anchored.

Use Surflan 75W only as a part of a total turf management program that includes good fertilization practices.

Do not apply Surflan 75W in the spring or early summer to tall fescue turfgrass reseeded the previous fall. In such cases, apply Balan* 2.5G granular herbicide at 60 to 80 pounds per acre in early summer (Round 1) and Surflan 75W at a rate of 1 packet per 0.67 acre (2 pounds per acre) approximately eight weeks later (Round 2). Do not apply Surflan 75W at the single application rate of 1 packet per acre (2.6 pounds per acre) to established tall fescue; in such cases, apply 1 packet per 0.67 acre (2 pounds per acre) of Surflan 75W in an initial application, followed by a second application of 1 packet per 0.67 acre 8 to 10 weeks later.

In bermudagrass areas that have been overseeded with winter grasses, a spring application of Surflan 75W will thin the overseeded grasses.

Annual Grasses Controlled by Surflan 75W**Summer Annuals:**

Common Name	Scientific Name
barnyardgrass (Watergrass)	<i>Echinochloa crus-galli</i>
crabgrass, large	<i>Digitaria sanguinalis</i>
crabgrass, smooth	<i>Digitaria ischaemum</i>
crabgrass	<i>Digitaria</i> spp.
crowfootgrass	<i>Dactyloctenium aegyptium</i>
foxtail, bristlegrass	<i>Setaria magna</i>
foxtail, giant	<i>Setaria faberi</i>
foxtail, green (Pigeongrass)	<i>Setaria viridis</i>
foxtail, robust	<i>Setaria robusta</i>
foxtail, yellow	<i>Setaria glauca</i>
goosegrass (Silver crabgrass)	<i>Eleusine indica</i>
johnsongrass (Seedling only)	<i>Sorghum halepense</i>
ryegrass, Italian	<i>Lolium multiflorum</i>
sandbur, field	<i>Cenchrus incertus</i>

Winter Annuals:

Common Name	Scientific Name
bluegrass, annual	<i>Poa annua</i>

Annual Broadleaf Weeds Controlled by Surflan 75W**Summer Annuals:**

Common Name	Scientific Name
carpetweed	<i>Mollugo verticillata</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
purslane, common	<i>Portulaca oleracea</i>

Winter Annuals:

Common Name	Scientific Name
chickweed, common	<i>Stellaria media</i>
henbit	<i>Lamium amplexicaule</i>

Broadleaf Weeds Suppressed by Surflan 75W

Common Name	Scientific Name
groundsel, common	<i>Senecio vulgaris</i>
spurge, prostrate	<i>Euphorbia humistrata</i>
woodsorrel, yellow	<i>Oxalis stricta</i>

Application Rates, Frequency and Timing of Application

Surflan 75W can be applied in the spring for summer annual grass and broadleaf weed control, and in the fall for annual bluegrass (*Poa annua*) and winter annual broadleaf weed control.

Broadcast Application Rates (Warm Season Turfgrasses)

Use Area	Surflan 75W		Minimum Time Between Applications	Total Amount Allowed Per Year
	(lb/acre)	(packets/acre)	(months)	(lb)
All, except	2	1.5	3	8
Florida	2.6	2	3	8
Florida	2	1.5	3	6

1. Summer Annual Grasses and Broadleaf Weeds

Single Application Program: Apply 2 to 3 packets (2.6 to 3.9 pounds) of Surflan 75W per acre in late winter or early spring, prior to the onset of conditions favorable for annual weed germination. Apply at a rate of 3 packets (3.9 pounds) per acre in areas with a longer growing season or where control of weeds is required for a longer period of time

Split Application Program: As an alternative to a single application program, Surflan 75W may be applied in a split application. This program is desirable when the initial application is made well in advance of weed germination and where weed control is desired for a longer period of time. Apply at a rate of 1 packet (2 pounds per acre) per 0.67 acre in an initial application, followed by a second application of 1 packet per 0.67 acre 8 to 10 weeks later.

The second treatment of the split application may follow application of a different preemergence grass herbicide in place of the initial application of Surflan 75W.

2. Annual Bluegrass (*Poa annua*) and Winter Annual Broadleaf Weeds

In areas of heavy annual bluegrass infestation, its elimination will result in temporary thinning of turfgrass cover. Proper fertilization, irrigation and soil incorporated reseeding should be employed to speed the restoration of desirable turfgrass cover in areas previously occupied by annual bluegrass (See section on reseeding).

Apply Surflan 75W as a preemergence treatment in late summer or early fall, prior to the expected germination period for annual bluegrass and winter annual broadleaf weeds. If annual bluegrass infestation is severe and its elimination will result in thinning of turfgrass cover, apply Surflan 75W at a rate of 1 packet per 0.67 acre (2 pounds per acre). If thinning of turfgrass cover is not a potential problem, Surflan 75W may be applied at a rate of 2 packets per acre (2.6 pounds per acre)

Weed Control in Florida: In Florida, apply at a rate of 1 packet per 0.67 acre (2 pounds per acre) of Surflan 75W three times per year, or every 90 to 100 days, in the fall, early spring, and early summer. Do not apply more than 1 packet per 0.67 acre (2 pounds) of Surflan 75W in any single application.

Application Equipment

Apply Surflan 75W evenly over the turfgrass area. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application. For best results use application equipment designed to uniformly broadcast liquid herbicides. Calibrate application equipment prior to use, according to manufacturer's directions. Check equipment frequently to make sure it is working properly and distributing spray uniformly.

Reseeding

Herbicides that control annual weeds may also affect establishment of desirable turfgrass seedlings. Reseeding should be delayed for at least 90-120 days following application of Surflan 75W. When reseeding, it is essential that proper cultural practices such as soil cultivation and seedbed preparation, irrigation and fertilization be followed. For satisfactory reseeding results following use of Surflan 75W, the seeding rate should be increased and equipment designed to place seed in full contact with soil (such as the Rogers Aero Seeder) should be employed.

**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

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