

70506-46

12/23/2005

Page 1814



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

DEC 23 2005

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

ANN TILLMAN, Ph.D.  
UNITED PHOSPHORUS INC.  
423 RIVERVIEW PLAZA  
TRENTON, NJ 08611

Dear Dr. Tillman:

SUBJECT: LABEL AMENDMENT - Oryzalin TRED  
Surflan Dry Flowable  
EPA Registration No. 70506-46  
Application Date: November 14, 2005

The label amendment referred to above, submitted in accordance with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy of labeling is enclosed for your records. Please submit one(1) copy of your final printed labeling before you release the product for shipment. **This amended labeling supersedes all previously accepted ones.**

Sincerely yours,

*Joanne I. Miller*

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

(Base label):

# Surflan® Dry Flowable

**A preemergence surface-applied herbicide for the control of most annual grasses and certain broadleaf weeds**

Active Ingredient:	
oryzalin: 3,5-dinitro- N <sup>4</sup> , N <sup>4</sup> -dipropylsulfanilamide .....	85.0%
Inert Ingredients .....	15.0%
Total .....	100.0%

Contains 0.85 pounds of active ingredient per pound of product.

**Keep Out of Reach of Children**

## CAUTION      PRECAUCION

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
- Chemical-resistant 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

When handlers use closed systems or enclosed cabs 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.

ACCEPTED  
DEC 23 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

20506-46

3 8 14

### 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 immediately 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 further treatment advice.

### 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.

### Agricultural Use Requirements

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

For emergency medical assistance, call the National Pesticide Information Center 1-800-858-7378. For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

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

EPA Reg. No. 70506-46



United Phosphorus, Inc.  
423 Riverview Plaza  
Trenton, NJ 08611  
1-800-247-1557 • [www.upi-usa.com](http://www.upi-usa.com)

## Herbicide

Net Contents 1b

4 8 14

(Datapack cover):

# Surflan® Dry Flowable

**A preemergence surface-applied herbicide for the control of most annual grasses and certain broadleaf weeds**

Active Ingredient:

oryzalin: 3,5-dinitro- N <sup>4</sup> , N <sup>4</sup> -dipropylsulfanilamide .....	85.0%
Inert Ingredients .....	15.0%
Total .....	100.0%

Contains 0.85 pounds of active ingredient per pound of product.

**Keep Out of Reach of Children**

## CAUTION PRECAUCION

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.)

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to 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), User Safety Recommendations and 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.**

For emergency medical assistance, call the National Pesticide Information Center 1-800-858-7378. For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

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

EPA Reg. No. 70506-46

EPA Est. No.



United Phosphorus, Inc.  
423 Riverview Plaza  
Trenton, NJ 08611  
1-800-247-1557 • www.upi-usa.com

**Herbicide**

**Net Contents 1b**

5 8 14

---

**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
- Chemical-resistant 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**

When handlers use closed systems or enclosed cabs 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/PPE 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 immediately 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 further treatment advice.

**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.

---

**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.

6 8 14

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
- Chemical-resistant gloves
- Shoes plus socks

### **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 use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **General Information**

Surflan Dry Flowable herbicide is a preemergence, surface applied herbicide for the control of most annual grasses and certain broadleaf weeds. Surflan Dry Flowable controls susceptible annual weeds by disrupting plant growth processes during germination. Surflan Dry Flowable may be applied in liquid sprays of water or liquid fertilizer. Surflan Dry Flowable may be tank mixed with other herbicides to control existing vegetation or improve the spectrum of weeds controlled. Surflan Dry Flowable alone does not control established weeds.

### **General Use Precautions and Restrictions**

Do not graze or feed forage from treated fields or orchards to livestock.

Do not over-apply Surflan Dry Flowable. Over-application may result in crop injury or soil residue.

Do not plant any root crop for 12 months following a Surflan Dry Flowable application.

Do not use Surflan Dry Flowable on soils containing more than 5% organic matter.

7 8 14

Apply Surflan Dry Flowable directly to the soil surface in orchards or vineyards.

For orchard crops, including citrus, pome fruits, stone fruits, and tree nuts, apply product only as a strip treatment in the tree rows; do not apply to row middles or drive rows.

Carefully follow label directions to avoid poor weed control or crop injury.

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

Do not aerially apply this product.

### **Soil Preparation**

Optimum herbicidal activity occurs when Surflan Dry Flowable is applied to the soil surface. Prior to application, existing unwanted vegetation should be destroyed by tillage or use of contact or translocated herbicides. Crop or weed residues, pruning and trash should be thoroughly mixed into the soil by tillage equipment or removed before treatment. Soil should be in good tilth and free of clods at the time of application.

### **Activation and Cultivation**

A single 1/2 to 1-inch rainfall or sprinkler irrigation is required to activate Surflan Dry Flowable and move the herbicide into the zone of weed germination. Rainfall or irrigation of 1 inch or more is needed to activate Surflan Dry Flowable on fine-textured, high organic matter soils. If weeds begin to emerge, a shallow cultivation to a depth of 1 to 2 inches will destroy existing weeds and place Surflan Dry Flowable in the zone of weed germination.

### **Mixing Directions**

#### **Surflan Dry Flowable - Alone**

Surflan Dry Flowable may be applied in water or most liquid fertilizer materials. Prior to mixing Surflan Dry Flowable in liquid fertilizer, refer to "Testing for Compatibility in Liquid Fertilizers" for test procedures to determine compatibility with the fertilizer product to be used. The combination of Surflan Dry Flowable with solution and suspension-type fertilizers provides annual weed control equal to Surflan Dry Flowable applied in water. Individual state regulations relating to liquid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

Start with a clean spray tank. Fill the sprayer to 1/3 to 1/2 of the required spray volume. Start agitation. Add the correct amount of Surflan Dry Flowable, continue agitation, and fill spray tank to required spray volume. Maintain continuous agitation from mixing through application.

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

#### **Surflan Dry Flowable - Tank Mix Combinations**

Surflan Dry Flowable may be tank mixed with other products and applied with water or most liquid fertilizer materials. Prior to mixing Surflan and another product in liquid fertilizer, refer to the tank mix product manufacturer's label to determine if application in liquid fertilizer is recommended. Also refer to the section in this label entitled "Testing for Compatibility in Liquid Fertilizers" for testing procedures to determine tank-mix compatibility with the liquid fertilizer product to be used. The combination of Surflan with solution and suspension-type fertilizers provides annual weed control equal to Surflan applied in water. Individual state regulations relating to liquid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale. Read and follow all label instructions for each material to be added to the spray tank.

8 7 14

Vigorous and continuous agitation is required for all tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks. To prevent foaming, keep the end of the fill pipe below the surface of the water in the spray tank during filling to prevent air from being stirred or splashed into the mixture.

**Mixing Order:** Fill the spray tank to 3/4 of the total spray volume required. Start agitation. 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: Surflan Dry Flowable and other dry flowables (DF); wettable powders (WP); flowables (F); liquids (L) or aqueous suspensions (S); solutions (S); and emulsifiable concentrates (EC).

Fill the spray tank to final volume. Maintain continuous agitation during mixing, final filling and throughout application. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be suspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled materials may be more difficult to resuspend than when originally mixed.

**Premixing:** When tank mixing, initial mixing and dispersion of Surflan Dry Flowable or other dry flowable or wettable powder products may be improved by premixing with water (slurrying). Where recommended, follow product label instructions for each material. Adding the slurried material to the spray tank through a 20 to 35 mesh-wetting screen will help assure good initial dispersion. Line screens in the tank through a no finer than 50 mesh (100 mesh is finer than 50 mesh).

### Testing for Compatibility in Liquid Fertilizers

Surflan Dry Flowable alone or in combination with other product formulations may not combine properly with some liquid fertilizer materials. Small quantities of such mixtures should always be tested before full-scale mixing. Follow the testing procedure below to determine if a compatibility agent is needed or which compatibility agent performs best in the mixture being applied. Nine compatibility agents listed at the end of this section have been thoroughly tested. Other surfactant materials available may not be formulated for use with liquid fertilizers.

#### Testing Procedure

1. Add 1 pint of liquid fertilizer to a 1-quart glass jar.
2. Add 1 to 4 teaspoonfuls (depending on application rate) of the products to be tank mixed in the liquid fertilizer. Add the materials in the order recommended in the "Mixing Directions" section of this label. Mix until evenly dispersed after addition of each formulation. If dry flowable or wettable powder formulations do not disperse well, it may be necessary to slurry the materials in a small amount of water before addition to the liquid fertilizer.
3. Observe the jar for about 10 minutes. If materials rise to the surface and form a thick layer (oil curds) which will not redispense when agitated, a compatibility agent is needed. If the mixture is easily redispersed with slight agitation, a compatibility agent is not required, however, good agitation must be provided to maintain dispersion in the spray tank from mixing through application.
4. If the need for a compatibility agent is demonstrated in step 3, it may be tested as follows: Using a clean clear plastic or glass container, start at step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer mixture. Shake well and then repeat steps 2 and 3. An effective compatibility agent will cause the mixture to remain uniformly mixed with little or no separation for 1/2 hour or longer. If slight separation occurs, 2 to 3 inversions of the container should be sufficient to uniformly redispense the mixture. If oily curds form which will not disperse, try adding additional compatibility agent or use an alternative compatibility agent to achieve a uniform mixture. A clean jar should be used for each test.



9 7 14

**Compatibility Agents**

The phosphate ester-type surfactants listed below are designed for use with liquid fertilizers and can be mixed at rates as low as 1 1/2 to 2 pints per ton of liquid fertilizer. They usually do not work well as compatibility agents for tank mixes in plain water. Add the compatibility agent just before adding herbicides. Read and follow label directions for the compatibility agent.

1. Sponto 168D (Witco Chemicals Co., Chicago, IL)
2. Compat (Farm Chemicals, Inc., Aberdeen, NC)  
Not registered for use in California.
3. Unite (Hopkins Ag Chemical, Madison, WI)
4. T-Mulz 734-2 (Thompson-Hayward Chemical Co., Kansas City, KS)  
Not registered for use in California.
5. Rigo Compatibility Agent (Rigo Company, Buckner, KY)  
Not registered for use in California.
6. Amoco Spray Mate (Amoco Oil Co., Chicago, IL)  
Not registered for use in California.
7. Kem-Link (Universal Coop, Minneapolis, MN)  
Not registered for use in California.
8. Blendex (Helena Chemical, Cayce-West, Columbia, SC)  
Not registered for use in California.
9. Spray-Aide (Miller Chemical and Fertilizer Corp., Hanover, PA)

**Application Methods****Ground Broadcast Application**

Apply Surflan Dry Flowable in a total spray volume of 20 to 40 gallons per acre (broadcast basis), using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. Use herbicide nozzle tips and screens no finer than 50 mesh for nozzle and in-line strainers. As the amount of spray volume per acre decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application. Avoid boom overlaps that will increase rates above those recommended.

**Band Application**

For band application, use the following formula to calculate the required amount of product per acre.

$$\frac{\text{Band Width (inches)}}{\text{Row Width (inches)}} \times \text{Broadcast rate per acre} = \text{Amount required per acre}$$

**Weeds and Grasses Controlled in Fruit and Nut Crops and Vineyards****Annual Grasses**

Common Name	Scientific Name
barley, little	<i>Hordeum pusillum</i>
barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>
bluegrass, annual (poa)	<i>Poa annua</i>
brachiaria (signalgrass)	<i>Brachiaria</i> spp.
browntop panicum	<i>Panicum fasciculatum</i>
crabgrass	<i>Digitaria</i> spp.
(large crabgrass)	
(smooth crabgrass)	
crowfootgrass	<i>Dactyloctenium</i> <i>aegyptium</i>
cupgrass	<i>Eriochloa gracilis</i>
downy brome	<i>Bromus tectorum</i>

10 8 14

fall panicum (spreading panicgrass)	<i>Panicum dichotomiflorum</i>
foxtails (bottlegrass) (bristlegrass) (giant foxtail) (green foxtail) (pigeongrass) (robust foxtail) (yellow foxtail)	<i>Setaria</i> spp.
guineagrass (narrowleaf panicum)	<i>Panicum maximum</i>
johnsongrass (seedling only)	<i>Sorghum halepense</i>
jungerice	<i>Echinochloa colonum</i>
lovegrass, Mexican	<i>Eragrostis mexicana</i>
lovegrass, orcutt	<i>Eragrostis orcuttiana</i>
oat, wild	<i>Avena fatua</i>
ryegrass, annual (Italian)	<i>Lolium multiflorum</i>
sandbur, field	<i>Cenchrus incertus</i>
sprangletop, red	<i>Leptochloa filiformis</i>
Texas panicum (buffalograss) (Coloradograss)	<i>Panicum texanum</i>
witchgrass	<i>Panicum capillare</i>

**Annual Broadleaf Weeds**

<b>Common Name</b>	<b>Scientific Name</b>
carpet weed	<i>Mollugo verticillata</i>
chickweed	<i>Stellaria media</i>
cudweed	<i>Gnaphalium chilense</i>
fiddleneck, coast	<i>Amsinckia intermedia</i>
Florida pusley (Florida purslane) (Mexican clover) (pusley)	<i>Richardia scabra</i>
henbit	<i>Lamium amplexicaule</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
lambquarters	<i>Chenopodium album</i>
pigweeds (carelessweed) (prostrate pigweed) (redroot pigweed) (rough pigweed) (smooth pigweed) (spiny pigweed) (tumble pigweed)	<i>Amaranthus</i> spp.
Puncturevine	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
rockpurslane, redmaids	<i>Calandrinia caulescens</i>
shepherdspurse	<i>Capsella bursa-pastoris</i>

**Surflan Dry Flowable provides partial control or suppression of:**

<b>Common Name</b>	<b>Scientific Name</b>
filaree, redstem	<i>Erodium cicutarium</i>
filaree, whitestem	<i>Erodium moschatum</i>
groundsel, common	<i>Senecio vulgaris</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, annual	<i>Ipomoea</i> spp.
mustard, black	<i>Brassica nigra</i>
mustard, wild	<i>Sinapis arvensis</i>
nightshade, black	<i>Solanum nigrum</i>
prickly sida (teaweed)	<i>Sida spinosa</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
ragweed, giant	<i>Ambrosia trifida</i>
rocket, London	<i>Sisymbrium irio</i>
smartweed, annual	<i>Polygonum</i> spp.
sowthistle, annual	<i>Sonchus oleraceus</i>
spurge, prostrate	<i>Euphorbia humistrata</i>
spurge, spotted	<i>Euphorbia maculata</i>
velvetleaf	<i>Abutilon theophrasti</i>

**Approved Crops****Fruit and Nut Crops and Vineyards (Non-bearing and Bearing)****Surflan Dry Flowable - Alone**

Apply Surflan Dry Flowable to fruit and nut crops and vineyards as a preemergence treatment to control annual grasses and broadleaf weeds listed in "General Information". Surflan Dry Flowable is approved for use on the following crops:

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

**Small Fruits:**

blackberry	currant	gooseberry
blueberry†	dewberry	loganberry
boysenberry	elderberry	raspberry

†Do not apply Surflan Dry Flowable to lowbush blueberries.

For orchard crops, including citrus, pome fruits, stone fruits, and tree nuts, apply product only as a strip treatment in the tree rows; do not apply to row middles or drive rows.

12 8 14

**General Use Directions**

Existing vegetation should be destroyed by tillage or use of a contact or translocated herbicide in tank mix combination with Surflan Dry Flowable. To insure tank mix compatibility of Surflan Dry Flowable with contact or translocated herbicides, mix the products together in correct proportions in a small container of water. After mixing, let stand for 5 minutes and check for compatibility. If the combination remains mixed or can be resuspended easily, the mixture is compatible.

**Application Methods:** Surflan Dry Flowable may be applied in liquid sprays of water or liquid fertilizer. Refer to the "General Information" section of this label for mixing directions and details on application methods and precautions before use.

**Activation:** A single 1/2 to 1 inch rainfall or sprinkler irrigation is required to activate Surflan Dry Flowable and move the herbicide into the zone of weed seed germination. If weeds begin to emerge, a shallow cultivation 1 to 2 inches deep will destroy existing weeds and place Surflan Dry Flowable in the zone of weed seed germination. Rainfall or sprinkler irrigation of 1 inch or more is required to activate Surflan Dry Flowable on fine-textured or high organic matter soil.

**Broadcast Application Rates**

Soil Texture	Length of Control	Surflan Dry Flowable (lb/acre)	Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
All Soil Textures	Short Term (2 - 4 months)	2.4	2.5	14
	Long Term (6 - 8 months)	4.7	2.5	14
	(8 - 12 months)	7.1	2.5	14

**Precautions:**

Poor weed control may result if directions are not carefully followed. Over-application may result in crop injury or excessive soil residue. Apply spray directly to the soil surface of the orchard or vineyard.

**Surflan Dry Flowable Tank Mix Recommendations**

The following products are compatible with Surflan Dry Flowable when used in tank mix combination. Performance and risk of carryover from products listed below when used in combination with Surflan Dry Flowable at recommended rates is the same as when each product is used separately.

Follow tank mixing instructions provided in the "General Information" section of this label when mixing Surflan Dry Flowable with other products.

Users should always consult the manufacturer's label for the product(s) to be tank mixed with Surflan Dry Flowable for specific information on use rates, additional weeds controlled, rotational crop restrictions or risk of carryover, special tank mix instructions, additional use directions, precautions and limitations before use.

**Note:** Some crop uses of tank mix products are limited to or excluded from certain states.

**Recommended Surflan Dry Flowable Tank Mix Combinations:**

Surflan Dry Flowable plus Goal  
 Surflan Dry Flowable plus Goal plus Gramoxone Super  
 Surflan Dry Flowable plus Gramoxone Super  
 Surflan Dry Flowable plus Princep (simazine)  
 Surflan Dry Flowable plus glyphosate  
 Surflan Dry Flowable plus Solicam

**Surflan Dry Flowable - Tank Mix Reference Table:**

The following table lists approved crops for Surflan Dry Flowable and products for tank mixes with Surflan Dry Flowable

(\* = Approved Crop). Refer to the table to determine if the herbicides recommended for tank mixing can be applied to your crop. For use on a given crop, two asterisks must be indicated for Surflan Dry Flowable and the product with which it is to be tank mixed.

	Surflan Dry Flowable	Goal	Gramoxone Super	Princep (simazine)	glyphosate	Solicam
Almond	**	**	**	**	**	**
Apple	**	**	**	**	**	**
Apricot	**	**	**	-	**	**
Avocado	**	**	**	**	**	-
Cherry	**	**	**	**	**	-
Fig	**	**	**	-	**	-
Filbert	**	**	**	**	**	**
Grape	**	**	**	**	**	**
Grapefruit	**	-	**	**	**	**
Kiwi	**	**	**	-	**	-
Lemon	**	-	**	**	**	**
Macadamia nut	**	**	**	**	**	-
Nectarine	**	**	**	-	**	**
Olive	**	**	**	**	**	-
Orange	**	-	**	**	**	**
Peach	**	**	**	**	**	**
Pear	**	**	**	**	**	**
Pecan	**	**	**	**	**	**
Pistachio	**	**	**	-	**	-
Plum	**	**	**	**	**	**
Pomegranate	**	**	-	-	**	-
Prune	**	**	**	-	**	**
Walnut, English	**	**	**	-	**	**

**Small Fruits:**

Blackberry	**	-	**	**	**	**
Blueberry	**	-	**	**	**	**
Boysenberry	**	-	**	**	**	-
Currants	**	-	-	-	**	-
Dewberry	**	-	-	-	**	-
Elderberry	**	-	-	-	**	-
Gooseberry	**	-	-	-	**	-
Loganberry	**	-	-	**	**	-
Raspberry	**	-	**	**	**	**

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT****CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

The Directions for Use of this product should be followed carefully. The Directions for Use of this product reflect the opinion of experts based on field use and tests. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. **UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of United Phosphorus, Inc.

Surflan is a Registered Trademark of United Phosphorus, Inc.  
Goal is a trademark of Dow AgroSciences, LLC  
Gramoxone, Princep, Solicam are trademarks of Syngenta Crop Protection

EPA-last accepted: 11/30/1999  
Revision for RED 11-7-05