

An optimized preemergence surface-applied herbicide for the control of many annual grasses and certain broadleaf weeds in ornamentals, turf, Christmas tree plantations, and non-cropland areas and industrial sites.

oryzalin: 3,5-dinitro- $N^4$ , $N^4$ -dipropylsulfanilamide	34.0%
OTHER INGREDIENTS:	66.0%
TOTAL:	100.0%
Contains 3.2 pounds of active ingredient per gallon.	
Patent Pending.	

EPA Reg. No. 70506-308

# KEEP OUT OF REACH OF CHILDREN CAUTION

### **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 eye.
- 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. You may also contact the Rocky Mountain Poison Control Center at 1-866-673-6671 for emergency medical treatment.

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.

Shake Well Before Using.



Net Contents: \_\_\_\_\_ Gallons

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# Precautionary Statements Hazards to Humans and Domestic Animals CAUTION

Avoid contact with 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
- Mixers and loaders must wear a chemical-resistant apron in addition to other PPE.

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls Statements**

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.

### **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 wash waters. Cover or incorporate spills.

### **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.

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, if they are performing tasks that do not involve contact with the soil subsurface; 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

### **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.

### 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 of 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:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

[for containers less than or equal to 5 gallons] Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

[for containers greater than 5 gallons] Triple rinse or pressure rinse as follows: Triple rinse: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Turn the container over on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

<u>Pressure rinse:</u> Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. 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 flow begins to drip.

[all sizes] Offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **Use Information**

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

**Ornamental uses:** ornamentals (trees, shrubs, groundcovers/perennials, flowers, nonbearing trees and vines), ornamental bulbs, turf grasses.

Other uses: Christmas tree plantations, established trees grown for pulp, non-cropland areas and industrial sites.

SURFLAN FLEX 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 FLEX may also be applied with colorants, such as Mulch Magic or Nu-Mulch.

SURFLAN FLEX may be applied before or after transplanting of the crop. If applied prior to transplanting: (1) minimize disturbance of surface soil when transplanting to prevent loss of weed control; and (2) minimize exposure of the roots of transplants to treated soil to avoid any possibility of crop injury.

### **Use Precautions and Restrictions**

- Do not graze or feed forage from treated areas to livestock.
- Poor weed control may result if directions are not carefully followed.
- Do not over-apply SURFLAN FLEX. Over-application may result in crop injury and in residues that exceed established tolerances, or in excessive soil residue that may injure rotational crops.
- Do not plant any root crop for 12 months following a SURFLAN FLEX application.
- Do not use SURFLAN FLEX on soils containing more than 5% organic matter
- Apply SURFLAN FLEX directly to a debris and clod free 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.
- · Do not aerially apply this product.
- Avoid spray drift to non-target areas when applying SURFLAN FLEX.
   Spray drift may result in reduced emergence of non-target plants adjacent to the treated area.

### Weeds and Grasses Controlled

### Annual Grasses

Annual Grasses	
Common Name	Scientific Name
barley, little	Hordeum pusillum
barnyardgrass (watergrass)	Echinochloa crus-galli
brachiaria (signalgrass)	Brachiaria spp.
crabgrass	Digitaria spp.
(large crabgrass)	
(smooth crabgrass)	
crowfootgrass	Dactyloctenium aegyptium
cupgrass	Eriochloa gracilis
downy brome	Bromus tectorum
foxtails (bottlegrass) (bristlegrass) (giant foxtail) (green foxtail) (pigeongrass) (robust foxtail) (yellow foxtail)	<i>Setaria</i> spp.
guineagrass (narrowleaf panicum)	Panicum maximum
Goosegrass (silver crabgrass)	Eleusine indica
johnsongrass (seedling only)	Sorghum halepense
junglerice	Echinochloa colonum
lovegrass, Mexican	Eragrostis mexicana
lovegrass, orcutt	Eragrostis orcuttiana
oat, wild	Avena fatua
panicum, browntop	Panicum fasciculatum
panicum, fall (spreading panicgrass)	Panicum dichotomiflorum
panicum, Texas (buffalograss) (Coloradograss)	Panicum texanum
ryegrass, annual (Italian)	Lolium multiflorum
sandbur, field	Cenchrus incertus
sprangletop, red	Leptochloa filiformis
witchgrass	Panicum capillare
Annual Broadleaf Weeds	
Common Name	Scientific Name
bittercress	Cardamine oligosperma
carpet weed	Mollugo verticillata
chickweed, common	Stellaria media
cudweed	Gnaphalium chilense
fiddleneck, coast	Amsinckia intermedia
filaree, redstem	Erodium cicutarium
filaree, whitestem	Erodium moschatum
Florida pusley (Florida purslane) (Mexican clover) (pusley)	Richardia scabra
groundsel, common	Senecio vulgaris
henbit	Lamium amplexicaule
knotweed, prostrate	Polygonum aviculare
lamba a contana	Ohanan adium album

Chenopodium album

lambsquarters

### Annual Broadleaf Weeds (continued)

Common Name	Scientific Name		
pigweeds	Amaranthus spp.		
(carelessweed)			
(prostrate pigweed)			
(redroot pigweed)			
(rough pigweed)			
(smooth pigweed)			
(spiny pigweed)			
(spring pigweed)			
(tumble pigweed)			
puncturevine	Tribulus terrestris		
purslane, common	Portulaca oleracea		
rocket, London	Sisymbrium irio		
rockpurslane, desert	Calandrinia ciliata		
rockpurslane, redmaids	Calandrinia caulescens		
shepherdspurse	Capsella bursa-pastoris		
spurge, prostrate	Euphorbia humistrata		
woodsorrel, yellow	Oxalis stricta		

### SURFLAN FLEX provides partial control or suppression of:

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

### **Soil Preparation**

SURFLAN FLEX controls weeds growing from seed. SURFLAN FLEX does not control emerged or established weeds, weeds growing from stolens, rhizomes, or root pieces. Therefore, areas to be treated should be free of emerged weeds. Mix weed residues, prunings, and trash thoroughly into the soil or remove prior to treatment. In field applications, the soil should be in good tilth and free of clods at the time of application.

### **Activation and Cultivation**

At least 1/2 to 1 inch rainfall or sprinkler irrigation is required to activate SURFLAN FLEX and move the herbicide into the zone of weed germination. Rainfall or irrigation of 1 inch or more is needed to activate SURFLAN FLEX 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 FLEX in the zone of weed germination.

### **Mixing Directions**

### **SURFLAN FLEX - Used Alone:**

SURFLAN FLEX may be applied in clean water or most liquid fertilizer materials. Prior to mixing SURFLAN FLEX 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 FLEX with solution and suspension-type fertilizers provides annual weed control equal to SURFLAN FLEX 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.

### Mixing Order - Used Alone:

- Start with a clean spray tank.
- Fill the sprayer with clean water to 1/3 to 1/2 of the total spray volume desired.
- Start agitation.
- Shake the container well and add the correct amount of SURFLAN FLEX.
- Continue agitation and finished filling the spray tank with clean water to total spray volume.
- · Maintain continuous agitation from mixing through application.

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

### **SURFLAN FLEX – Used in a Tank Mix:**

To broaden the spectrum of weed control, SURFLAN FLEX may be applied in tank mix combinations with labeled rates of other products registered and applied with water or most liquid fertilizer materials, provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; (2) tank mixing is not prohibited by the label of the tank mix product; and (3) A (jar) test is performed to ensure the compatibility of products to be used in tank mixture.

Performance and risk of carryover from tank mixed products used in combination with SURFLAN FLEX at specified rates is the same as when each product is used separately.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

### **Tank Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been thoroughly cleaned.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of SURFLAN FLEX and other products. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

### Mixing Order - Tank Mixing with Water:

- Fill the spray tank to 1/4 to 1/3 of the total spray volume.
- · Start agitation.
- Add different formulation types in the following order, allowing time for complete mixing and dispersion after addition of each product (allow extra mixing and dispersion time for dry flowable products):
- 1. Dry flowables;
- 2. Wettable powders;
- 3. SURFLAN FLEX (and other aqueous suspensions);
- 4. Flowables and water-based solutions:
- Maintain agitation and fill spray tank to 3/4 of total spray volume.
- 5. Then add emulsifiable concentrates
- Finish filling the spray tank.
- 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 re-suspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to re-suspend than when originally mixed.

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

### Tank Mixing with Liquid Fertilizer:

Prior to mixing SURFLAN FLEX with other products in liquid fertilizer, refer to the tank mix product manufacturer's label to determine if application in liquid fertilizer is recommended. Also refer to "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 FLEX with solution and suspension-type fertilizers provides annual weed control equal to SURFLAN FLEX 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.

Vigorous continuous agitation is required for all tank mixes. Sparger pipe agitators generally provide the best agitation in spray tank. 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 - Tank Mixing With Liquid Fertilizer:

- Fill the spray tank to 3/4 of the total spray volume required.
- · Start agitation.
- Add different formulation types in the following order, allowing time for complete mixing and dispersion after addition of each product. (Allow extra mixing and dispersion time for dry flowable products):
- 1. Dry flowables;
- 2. Wettable powders:
- 3. SURFLAN FLEX (and other aqueous suspensions);
- 4. Flowables and water-based solutions;
- 5. Emulsifiable concentrates
- Finish filling spray tank.
- 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 re-suspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled materials may be more difficult to re-suspend than when originally mixed.

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

**Premixing:** When tank mixing, initial mixing and dispersion of certain dry flowable or wettable powder products may be improved by premixing with water (slurrying). 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 should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

### **Equipment Cleaning:**

If a buildup of material occurs on the walls of the spray tank, remove it between fillings by washing with soap and water and rinsing thoroughly. Clean tanks, lines, screens, and nozzles thoroughly after each use.

### **Testing for Compatibility in Liquid Fertilizers**

SURFLAN FLEX alone or in combination with dry flowable (DF), wettable powder (WP), aqueous suspension (AS), flowable (F), liquid (L), solution (S) or emulsifiable concentrate (EC) formulations may not combine properly with some liquid fertilizer materials. Always test small quantities of such mixtures before full-scale mixing. Follow the testing procedure below to determine if a compatibility agent is needed or which compatibility agent works best in your liquid fertilizer plus herbicide mixture.

### **Testing Procedure:**

- 1. Add 1 pint of liquid fertilizer to 1-quart glass jar.
- 2. Add 1 to 4 teaspoonfuls of DF, WP, SURFLAN FLEX, other AS formulations, F, or L formulations, depending on mixing ratio required, to the liquid fertilizer. Close the jar and shake 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. After dispersing the materials in step 2, add any S formulations to the jar and shake well. Finally, add EC formulations to the mixture and shake well. Observe the jar for about 10 minutes. If materials rise to the surface and form a thick layer that will not re-disperse when agitated, a compatibility agent is needed. If the mixture is easily re-dispersed with slight agitation, a compatibility agent is not required. Good agitation, however, 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, use the following procedure: Using a clean clear plastic or glass container, repeat 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 container should be sufficient to uniformly re-disperse the mixture. If layers form that will not disperse, try adding additional compatibility agent or use an alternative compatibility agent to achieve a uniform mixture.

Use a clean jar in each test. A compatible mixture will have a uniform appearance and will be relatively easy to re-disperse with gentle agitation of the jar.

### **Compatibility Agents:**

Use a phosphate ester-type surfactant designed for use with liquid fertilizers mixed at rates as low as 1 1/2 to 2 pints per ton of liquid fertilizer. This type of surfactant usually doesn't work well as compatibility agent for tank mixes in plain water. Add the compatibility agent just before adding herbicides. Read and follow label directions for the compatibility agent.

### **Ornamental Plantings**

SURFLAN FLEX is for use on certain landscape container- and field-grown established ornamental plants including:

- · trees;
- shrubs;
- ground covers/perennials,
- flowers:
- · non-bearing fruit and nut trees;
- non-bearing vineyards;
- production of ornamental bulbs (See "Ornamental Bulbs" section for special use directions).

Apply SURFLAN FLEX as a preemergence treatment to control annual grasses and broadleaf weeds listed in "Use Information" section.

Follow all instructions provided in the "Use Information" and "Precautions and Restrictions" sections of this label.

Do not apply through any type of irrigation system for use on ornamentals.

Treatment of Plant Species Not Listed on the Label for SURFLAN FLEX: Users who wish to use SURFLAN FLEX on plant species not listed on this label may determine the suitability for use by treating a small number of such plants at a labeled rate. Prior to treatment of larger areas, observe the treated plants for any sign of herbicidal injury during 30-60 days of normal growing conditions to determine if the treatment is non-injurious to the target plant species. The user assumes responsibility for any plant damage or other liability resulting from use of SURFLAN FLEX on plant species not listed on this label.

### **Special Use Precautions:**

Apply only to established plants 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.

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.

To avoid possible injury, do not apply SURFLAN FLEX to:

- Seedling beds, cutting beds, or transplant beds of nursery, forest or Christmas trees.
- 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.

On container grown ornamentals where weed seed germination continues for extended periods of time, do not make repeat applications of SURFLAN FLEX for at least 90 days or crop injury may occur.

Applications of SURFLAN FLEX over the top of plants with newly forming buds may cause injury. In this situation a directed spray is recommended. For soils treated with SURFLAN FLEX during the previous season, plant only the ornamental species listed on this label or injury may occur.

Ice Plant: When establishing unrooted ice plant on coarse-textured soils in landscape plantings, do not exceed the 2 quart per acre rate of SURFLAN FLEX or crop injury may occur.

Note: Injury on the following plant species has been observed following applications of SURFLAN FLEX and use is not recommended:

Deutzia gracilis (slender deutzia)

Pseudotsuga menziesii (Douglas-fir)

Thuja occidentalis 'Techny' (Techny arborvitae)

Tsuga canadensis (eastern hemlock)

Begonia spp. (begonia)
Coleus hybridus (coleus)

### **Broadcast Application Rates**

		SURFLAN FLEX		Minimum Time Between Applications	Total Amount Allowed Per Year
Labeled Use Site	Length of Control	(qt/acre)	(fl oz/1,000 sq ft)	(months)	(qt/acre)
Landscape	2 - 4 months	2.0 - 2.5 qts/A	1.5 - 1.90 fl oz/1,000 sq ft	2 months	10 qts/A
Ornamentals	3 - 6 months	3.0 - 3.75 qts/A	2.2 - 2.75 fl oz/1,000 sq ft	4 months	11 qts/A
	7 - 8 months	4.0 - 5.0 qts/A	3.0 - 3.75 fl oz/1,000 sq ft	4 months	15 qts/A
Field-grown and	2 - 4 months	2.0 - 2.25 qts/A	1.5 - 1.90 fl oz/1,000 sq ft	3 months	10 qts/A
container-grown	3 - 6 months	3.0 - 3.75 qts/A	2.2 - 2.75 fl oz/1,000 sq ft	3 months	11 qts/A
ornamentals	7 - 8 months	4.0 - 5.0 qts/A	3.0 - 3.75 fl oz/1,000 sq ft	3 months	15 qts/A

### **Tank Mix Combinations**

Tank mix combinations of SURFLAN FLEX plus glyphosate, and many other labeled herbicides may be used to control undesirable vegetation in ornamental areas. Refer to tank mix product labels for specific use directions, precautions, and limitations before use. Tank mix of SURFLAN FLEX plus glyphosate will provide postemergence control of susceptible weed species listed on the label for glyphosate and residual preemergence control of susceptible weed species listed on the label for SURFLAN FLEX. Refer to the label for glyphosate 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 sprays containing glyphosate from coming in contact with foliage and stems of turfgrasses, trees, shrubs, or other desirable vegetation because severe damage or death may result. If spraying with glyphosate in areas adjacent to desirable plants, use a shield to prevent spray from contacting foliage and stems of desirable plants.

### **Application Methods**

**Ground Application:** Apply SURFLAN FLEX as a directed spray to the soil surface or over the top of plants. Use only a properly calibrated, lowpressure, herbicide sprayer that will apply the spray uniformly. Use screens no finer than 50 mesh in nozzles and in-line strainers. Apply the appropriate rate of SURFLAN FLEX, as outlined in "Broadcast Application Rates of the Ornamental Plantings" section of this label. In all cases, use sufficient water volume to obtain uniform coverage and deliver the desired rate of SURFLAN FLEX to the treated area. The volume of water used is not critical, as long as the desired rate of SURFLAN FLEX is delivered uniformly across the area treated. When calibrating, determine the volume of water delivered by the sprayer to a given area (1,000 sg ft, 1 acre. etc.). Then mix the desired rate of SURFLAN FLEX in the amount of water required to cover the entire area to be treated. 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.

Hand Held or Backpack Sprayer Application: The amount of water used to apply SURFLAN FLEX herbicide is not critical, but should be sufficient for uniform coverage of the target area. Calibrate by determining the volume of water required to treat 1,000 square feet. Use this calibration volume to determine the amount of water and SURFLAN FLEX herbicide needed to treat the target area (see the following calibration example). Note: Sprayer calibration (volume of spray needed to treat 1,000 square feet) will vary with each individual operator.

### Steps in Calibration:

- 1. Mark an area of 1,000 square feet (i.e. 20 by 50 feet, or 25 by 40 feet).
- 2. Place the sprayer on a level surface and add water noting the final level of water in the spray tank.
- 3. Spray the marked area with a sufficient volume of water to provide uniform coverage. Refill the sprayer to the same level as before measuring the amount of water added. The measured water added to the sprayer is the volume needed to cover 1,000 square feet.
- 4. Determine the application rate (fl oz/1,000 sq ft) for SURFLAN FLEX from the "Crop Specific Use Directions" section of this label.
- 5. To each volume of water used, as measured in step 3, add the amount of SURFLAN FLEX as determined in step 4.

**Example:** If the sprayer used 2 gallons of water to cover 1,000 square feet and the desired application rate of SURFLAN FLEX is 3 fluid oz/1,000 square feet, then you would add 3 fluid ounces of SURFLAN FLEX to every 2 gallons of water to be used.

### **Plant Species**

SURFLAN FLEX may be used on the following established plant species (note limitations on culture methods):

### **Trees**

11668		Culture Methods F = Field Grown
Scientific Name	Common Name	C = Container Grown
Abies balsamea	Fir, balsam	F
Abies concolor	Fir, white	F
Abies fraseri	Fir, fraser	F
Abies grandis	Fir, grand	F
Abies veitchi	Fir, Vietch	F
Abies lasiocarpa	Fir, alpine	F
Abutilon hybridum	Albus-flowering ma	ple F
	Luteus-flowering m	aple F
	Roseus-flowering n	naple F
	Tangerine-flowering	j maple F
	Vesuvius red-flowe	ring maple F
Acer gimmala	Flame maple	F
Acer rubrum	Red sunset maple	F
Acer saccharinum	Silver maple	F
Acer spp.	Maple	F
Alsophila australis	Australian tree fern	C,F
Areacastrum romanzoffianum	Queen palm	F
Betula nigra	Birch, river	F
Betula papyrifera	Paper birch	F
Betula pendula	Birch, white	F
Bucida buceras	Black olive	F
Carya spp.	Pecan, ornamental	C,F
Cedrus, atlantica	Atlas cedar	C,F
Cedrus deodara	Deodar cedar	C,F
Ceratonia siliqua	Carob	F
Cercidium floridum	Palo Verde, blue	F
Cercis canadensis	Redbud	C,F
Chamaecyparis lawsoniana	Falsecypress, Laws	on F
Chamaecyparis obtusa	Filicoides-fernspray	cypress F
	Gracilis-slender Hir	oki cypress F
Chamaecyparis pisifera	Sawara-false cypres	ss F
	Squarrosa-moss cy	press F
Chamaedorea cataractarum	Cat Palm	F
Chamaedorea costaricana	Palm	F
Chamaedorea elegans	Parlor palm	F
Citrus spp.	Citrus, ornamental	C,F
Cornus florida	Dogwood, flowering	g F
Cryptomeria japonica	Cryptomeria, Japan	ese C,F
Cupaniopsis anacardioides	Carrot wood	F
Cupressus arizonica (glabra)	Cypress, Arizona	C,F
Cupressus glabra	Arizona cypress	C,F
Cupressocyparis leylandii	Leyland cypress	C,F
Cupressus sempervirens	Cypress, Italian	C,F
Dicksonia antarctica	Tasmanian tree ferr	- ,
Elaeagnus angustifolia	Russian olive	C,F

irees (continuea)	Culture Me	thods	irees (continuea)		Culture Methods
	F = Field G	irown			F = Field Grown
Scientific Name	Common Name C = Container G	irown	Scientific Name	Common Name C	= Container Grown
Eucalyptus camaldulensis	Red gum eucalyptus	F	Quercus palustris	Pin oak	F
Eucalyptus cinerea	Eucalyptus, mealy	F	Quercus phellos	Willow oak	F
	Silver dollar eucalyptus	F	Quercus rubra	Red oak	C,F
Eucalyptus nicholii	Eucalyptus, narrow-leaved	F	<i>Quercus</i> spp.	Oak	C,F
Eucalyptus sideroxylon	Eucalyptus, red ironbark	F	Salix babylonica	Babylon weeping willo	w F
Ficus benjamina	Ficus	F		Corkscrew willow	F
<i>Fraxinus</i> spp.	Ash	F	Schinus molle	California pepper tree	F
Ginkgo biloba	Ginkgo (Maidenhair tree)	C,F	Sequoia sempervirens	Redwood, coast	F
Gleditsia triacanthos	Honey locust	F	Sequoiadendron giganteum	Giant sequoia	F
Heteromeles arbutiflora	Toyon	F	Swietenia mahogani	Mahogany	F
Juniperus virginiana	Redcedar, Eastern	F	Tabebuia caraiba	Yellow tab	F
Koelreuteria paniculata	Goldenrain tree	F	Tilia cordata	Linden, little leaf	C,F
Liquidambar styraciflua	Sweetgum, American	C,F	Ulmus parvifolia	Chinese elm	F
<i>Magnolia</i> spp.	Magnolia	F	Umbellularia californica	California laurel	F
<i>Malus</i> spp.	Crabapple	F	Washingtonia robusta	Mexican fan palm	F
Morus alba	White mulberry	F	Shrubs		
Picea abies	Pendula-weeping Norway spruce	F	Siliuus		Culture Methods
	Repens-spreading Norway spruce	F			F = Field Grown
	Spruce, Norway	F	Scientific Name	Common Name C	= Container Grown
Picea englemanni	Spruce, Englemann	F	Abelia grandiflora	Glossy abelia	F
Picea glauca	Spruce, white	F	Acacia redolens	Acacia, prostrate	F
	Conica-dwarf Alberta spruce	F	Agave americana	Century plant	F
Picea glauca conica	Dwarf Alberta spruce	F	Agave macroculmis	Agave	F
Picea mariana	Spruce, black	F	Anisodontea hypomandarum	•	C,F
Picea pungens	Glauca-Colorado blue spruce	F	Arctostaphylos stanfordiana	Manzanita, Stanford	F
	Hoopsii-Hoop's blue spruce	F	Astilbe chinensis	Astilbe/false spirea	C,F
	Koster-Koster blue spruce	F	Baccharis pilularis	Coyotebush	F
	Spruce, Colorado	C,F	Berberis thunbergii	Aurea-golden Japanes	e barberry C,F
Pinus aristata	Bristlecone pine	F		Crimson pygmy barbe	rry C,F
Pinus canariensis	Canary Island pine	F		Atropurea-redleaf Japa	anese barberry C,F
Pinus contorta	Shore pine, beach pine	F		Barberry, Japanese	C,F
Pinus eldarica	Eldarica pine	F	Bougainvillea spp.	Barbara Karst	F
Pinus halepensis	Aleppo pine	C,F		California gold	F
Pinus radiata	Monterey pine	F		Scarlet O'Hara	F
<i>Pinus</i> spp.	Pine	C,F		Texas dawn	F
Pinus strobus	Eastern white pine	F	Buddleia davidii	Butterfly bush	C,F
Pinus sylvestris	Scotch pine	F	Buxus microphylla	Littleleaf boxwood	F
Pinus thunbergiana	Japanese black pine	F	Buxus microphylla japonica	Boxwood, Japanese	C,F
Platanus occidentalis	American sycamore	F	Buxus sempervirens	Boxwood, common	C,F
Platanus racemosa	Califorina sycamore	F	Callistemon citrinus	Bottlebrush, lemon	C,F
Podocarpus spp.	Podocarpus	F	Cassia artemisioides	Cassia, feathery	F
Populus deltoides	Cottonwood	F	Ceanothus americanus	Jerseytea, redroot	C,F
	Cottonwood (grown for pulp)	F	Ceanothus spp.	Wild lilac	C,F
Prunus caroliniana	Laurelcherry, Carolina	F	Chaenomeles japonica	Flowering quince	C,F
Prunus glandulosa	Dwarf flowering almond	C,F	Chamaecyparis obtusa	Kosteri cypress	F
Prunus laurocerasus	Laurelcherry, English	F		Nana-dwarf Hinoki cyp	oress F
Prunus mahaleb	Cherry, Mahaleb	F		Torulosa cypress	F
Prunus yedoensis	Yoshino flowering cherry	F	Chamaecyparis pisifera	Squarrosa Minima cyp	ress F
Pyrus communis	Pear	F	Chamaecyparis pisifera spp.	Filifera-thread cypress	F

### Shrubs (continued)

### Shrubs (continued)

Shrubs <i>(continued)</i>			Shrubs <i>(continued)</i>		
	Culture M F = Field			Culture Me F = Field (	
Scientific Name	Common Name C = Container		Scientific Name	Common Name C = Container	
Chrysalidocarpus lutescens	Areca palm	F	llex aquifolium	Balkans holly	F
Clethra	Summersweet	C,F		Gold coast holly	F
Cleyera japonica	Cleyera, Japanese	C,F		Holly, English	F
Coleonema pulchrum	Pink breath of heaven	C,F	llex aquipernyi	San Jose holly	C,F
Cornus alba	Sibirica-Siberian dogwood	F	llex cornuta	Dwarf Burford holly	C,F
Cornus kousa	Dogwood, kousa	C,F		Holly, Chinese	C,F
Cornus stolonifera	Flaviramea-yellowtwig dogwood	F	llex crenata	Compacta-dwarf Japanese holly	C,F
Cotoneaster adpressus	Praecox-early cotoneaster	F		Convexa holly	C,F
Cotoneaster apiculatus	Cotoneaster, cranberry	C,F		Helleri-Heller's Japanese holly	C,F
Cotoneaster buxifolius	Cotoneaster, brightbead	F		Holly, Japanese	C,F
Cotoneaster congestus	Cotoneaster, Pyrenees	F	llex glabra	Nordica-inkberry holly	F
Cotoneaster dammeri	Cotoneaster, bearberry	C,F	llex meserveae	Blue boy holly	F
Cotoneaster himalayan	Himalayan cotoneaster	F		Blue girl holly	F
Cotoneaster horizontalis	Cotoneaster, rock	C,F		Ebony magic holly	F
Cotoneaster lacteus	Cotoneaster, parney	C,F	llex vomitoria	Nana-dwarf yaupon holly	C,F
Cotoneaster microphyllus	Cotoneaster, rockspray	F		Pendula-weeping yaupon holly	C,F
Cotoneaster salicifolia	Willowleaf cotoneaster	C,F		yaupon holly	C,F
Cytisus praecox	Hollandia-warminster broom	F	Juniperus chinensis	Media-old gold juniper	C,F
Cytisus scoparius	Lena-Scotch broom	F	Juniperus conferta	Emerald sea shore juniper	F
Dasylirion wheeleri	Sotol, desert spoon	F	Juniperus horizontalis	Huntington blue juniper	C,F
Deutzia crenata	Nakiana-dwarf deutzia	F		Wiltonii-blue carpet juniper	C,F
Dodonaea viscosa	Hopseedbush, clammy	F	Juniperus procumbens	Nana-dwarf Japanese garden junip	er C,F
	Hopseed bush	F	Juniperus prostrata	Prostrata juniper	C,F
Escallonia exoniensis	Escallonia	C,F	Juniperus sabina	Broadmoor juniper	F
Euonymus alata	Euonymus, winged	F		Foemina-Hicks juniper	F
Euonymus fortunei	Canadale gold euonymus	C,F		Tamariscifolia-Tam juniper	F
	Emerald'n gold euonymus	C,F	Juniperus scopulorum	Emerald green juniper	F
	Euonymus, stringybark	C,F	<i>Juniperus</i> spp.	Juniper	C,F
	Wintercreeper	C,F	Juniperus squamata	Blue juniper	F
Euonymus japonica	Euonymus, evergreen	C,F		Blue star juniper	F
	Silver king euonymus	F		Parsonii juniper	F
Euonymus kiatschovica	Spreading euonymus	F	Justicia brandegeana	Shrimp plant	C,F
Euonymus vegetus	Bigleaf wintercreeper	C,F	Justicia spicigera	Honeysuckle, Mexican	F
Fatshedera lizei	Fatshedera	C,F	Kalmia latifolia	Laurel, mountain	F
Fatsia japonica	Japanese aralia	C,F	Lagerstroemia indica	Crape myrtle	C,F
Felicia amelloides	Blue marguerite	C,F	Lavandula angustifolia	English lavender	C,F
Forsythia intermedia	Forsythia, border	F	Leucothoe axillaris	Leucothoe, coast	F
Gardenia jasminoides	Gardenia	C,F	Leucothoe fontanesiana	Leucothoe, drooping	F
Genista pilosa	Woadwaxen	F	Ligustrum amurense	Privet, amur	C,F
Hibiscus rosa-sinesis	Ross Estey-hibiscus	F	Ligustrum japonicum	Privet, Japanese	C,F
	Hibiscus, Chinese	F		yellow tip ligustrum	C,F
Hibiscus syriacus	Rose of Sharon, Red Bird	F	Ligustrum lucidum	Privet, glossy	C,F
	Rose of Sharon, Red Heart	F	Ligustrum ovalifolium	California privet	F
	Rose of Sharon, Woodbridge	F	Ligustrum texanum	Howardi privet	F
	Rose-of-Sharon (Shrubalthea)	F		Wax leaf privet	F
Hydrangea macrophylla	Hydrangea, French	C, F	Ligustrum vicaryi	Privet, golden	C,F
Hydrangea quercifolia	Hydrangea, Oakleaf	C, F		Vicary golden privet	C,F
			Livistona chinensis	Chinese fountain palm	F

### Shrubs (continued)

### Shrubs (continued)

Shrubs <i>(continued)</i>			Shrubs <i>(continued)</i>			
	Culture Met				Culture Me	
Scientific Name	F = Field G Common Name $C = Container G$		Scientific Name	Common Name	F = Field ( C = Container (	
Lonicera fragrantissima	Winter honeysuckle	F	Rhaphiolepis indica	Enchantress-Mone	ss rhaphiolepis	F
Lonicera periclymenum	Flowering woodbine	F		Rhaphiolepsis (Ind	ia hawthorn)	C,F
	Serotina woodbine	F		Springtime-Monme	e rhaphiolepis	F
Lonicera sempervirens	Trumpet honeysuckle	F	Rhaphiolepis ovata	Roundleaf rhaphiol	epis	F
Lorpetalum chinense	(No common name)	C,F	Rhipsalidopsis gaertneri	Eastercactus		C,F
Mahonia aquifolium	Oregon grape	F	Rhododendron calendulaceum	Flame azalea		F
Myoporum parvifolium	Myoporum, prostrate	F	Rhododendron campylocarpum	Butterfly rhododen	dron	F
Myrtus communis	Myrtle, true	C,F	Rhododendron carolinianum	PJM rhododendror	1	F
Nandina domestica	Compacta-dwarf heavenly bamboo	C,F	x daurium			
	Harbour dwarf-heavenly bamboo	C,F	Rhododendron catawbiense	Catawba album rho		C,F
	Heavenly bamboo (Nandina)	C,F		Catawba rhododen		C,F
	Nana compacta-heavenly bamboo	C,F		Lord Roberts rhode		C,F
	Nana purpurea-heavenly bamboo	C,F	5	Rocket rhododendi		C,F
	Woods dwarf-heavenly bamboo	C,F	Rhododendron forrestii x griersonianum	Elizabeth rhododen	iaron	F
Nerium oleander	Hardy red oleander	C,F	Rhododendron hybrid spp.	America rhododeno	dron	F
	Oleander	C,F	Milououenuron nybriu spp.	English Roseum rh		F
	Ruby lace oleander	C,F		Nova Zembla rhodo		F
Osmanthus heterophyllus	Osmanthus, holly-leaf	F		Scintillation rhodo		F
Pachysandra terminalis	Japanese spurge	C,F	Rhododendron impeditum	Rhododendron	denaron	F
Philadelphus spp.	Mockorange	C,F	Rhododendron indica	Formosa azalea		C,F
Phoenix roebelenii	Pigmy date palm	F	Tillououdinaron maida	Waucabusa azalea		C,F
Photinia fraseri	Fraser's photinia	C,F	Rhododendron kerume	Coral bells azalea		C,F
D	Photinia	C,F	Timododomaron Nordino	Hino crimson azale	ıa.	C,F
Pieris japonica	Lily-of-the-valley	F		Hino pink azalea		C,F
	Snowdrift lily-of-the-valley	F		Snow azalea		C,F
	Temple bells lily-of-the-valley	F F	Rhododendron maximum	Rhodie max (roseb	av)	C,F
	Valley rose lily-of-the-valley	C,F	Rhododendron mucronulatum	,	-37	F
Dittagnarum ann	Andromeda	C,F	Rhododendron satuski	Gumpo pink azalea		F
Pittosporum spp.	Pittosporum Craan nittoanarum	о,г F		Higasa azalea		F
Pittosporum tobira	Green pittosporum	F	Rhododendron spp.	Azalea		C,F
	Japanese pittosporum Tobira	F		Rhododendron		C,F
	Wheeler's dwarf pittosporum	F	Rhododendron spp. hybrids	Carror azalea		C,F
Platycladus orientalis	Arborvitae, Oriental	C,F		Girard Roberta aza	lea	F
Plumbago ariculata	Blue cape plumbago	F.		Golden flare exbury	y azalea	F
Podocarpus macrophyllus	Yewpine	C,F	Rhus lancea	Sumac, African		C,F
Potentilla fragiformis	Cinquefoil	F.	Rosa rugosa	Ramanas rose		F
Potentilla fruticosa	Cinquefoil	C,F	Rosmarinus officinalis	Rosemary		F
Protea neriifolia	Protea	F	Senecio cineraria	Dusty miller		C,F
Pyracantha coccinea	Firethorn, scarlet	C,F	Spiraea vanhouttei	Bridal wreath		F
Pyracantha fortuneana	Lolendei Monrovia pyracantha	C,F	Syringa vulgaris	Lilac, common		C,F
Pyracantha fortuneana	Monon pyracantha	C,F	Syzygium paniculata	Brush cherry		C,F
. ,	Red elf hybrid pyrcantha	C,F	Taxus cuspidata	Yew, Japanese		F
	Rutgers hybrid pyracantha	C,F	Taxus media	Yew		F
	Santa Cruz pyracantha	C,F				
	Victory pyracantha	C,F				
Pyracantha skoidzumi	Firethorn, formosa	C,F				
Pyracantha, fortuneana	Firethorn	C,F				
		•				

### Shrubs (continued)

### Groundcovers/Perennials (continued)

Shrubs (continued)	Cul	ture Methods	Groundcovers/Perennia	iis (continuea)	Culture Methods
0 :	F =	Field Grown	0 · N		F = Field Grown
Scientific Name		tainer Grown	Scientific Name		Container Grown
Thuja occidentalis	Arborvitae, American	C,F	Clytostoma callistegioides	Trumpet vine, violet	C,F
	Emerald arborvitae	F	Cortaderia selloana	Pampas grass	F
	Globosa-globe arborvitae	F	Cuphea hyssopifolia	False Mexican heather	C,F
	Little giant-dwarf arborvitae		Delosperma alba	White iceplant	F
	Nigra-dark American arbory		Dietes vegeta	Fortnight lily	C,F
	Pyramidalis arborvitae	F	Digitalis mertonensis	Foxglove	C,F
	Rheingold arborvitae	F	Doronicum cordatum	Leopard's bane	C,F
Thuis aviantalia	Woodwardii arborvitae	F	Drosanthemum floribundum	Trailing rosea iceplant	F
Thuja orientalis	Aureus nana-dwarf golden		Erianthus ravennae	Hardy pampus grass	C.F
Thuis plicate	Minima glauca-dwarf arbor		Festuca ovina glauca	Blue fescue	F
Thuja plicata	Red Cedar, Western	F F	Gaillardia grandiflora	Blanket flower	C,F
Trachelospermum jasminoides		F	Gazania rigens leucolaena	Gazania, trailing	C,F F
Veitchia merrilli Viburnum carlesii	Christmas palm Koreanspice viburnum	C,F	Gazania spp. Hedera canariensis	Gazania Ivy, Algerian	F
Viburnum davidii	David viburnum	о,г F	Hedera helix	Ivy, English	F
Viburnum japonicum	Viburnum	r F	Heliotropium fragrans	Common heliotrope	C,F
Viburnum judd (V X Judii)	Viburnum	C,F	Hemerocallis spp.	Daylily	C,F
Viburnum opulus sterile	Common snowball viburnur		Hosta lancifoila	Albo-marginata hosta	C,F
Viburnum plicatum tomentosum		'' ' F	Hosta spp.	Lily, plantain	C,F
Viburnum setigerum	Tea viburnum	F	Heuchera micrantha	Coral bells	C,F
Virbunum suspensum	Virbumum, Sandankwa	r F	Hypericum spp.	St. Johnswort	C,F
Viburnum tinus	Viburnum, Laurustinus	C,F	Iberis sempervirens	Evergreen candytuft	C,F
vibarriam tinao	Compactum-spring bouquet		Lampranthus spectabilis	Trailing iceplant	F.
Viburnum tinus compactum	Spring bouquet viburnum	F	Leptospermum scaparium	New Zealand teatree/Ma	
Viburnum trilobum compactum		F	Limonium perezii	Statice/Sea lavender	C,F
Viburnum x pragense	Viburnum	F	Liriope gigantea	White lily turf	5,1 F
Weigela florida	Bristol ruby weigela	F	Liriope muscari	Lilac beauty lily turf	C,F
Troigoia norida	Java red weigela	F	zmopo macoan	Majestic lily turf	C,F
	Minuet weigela	F		Monroe white lily turf	C,F
	Weigela, oldfashioned	F		Silvery sunproof lily tur	
Xylosma congestum	Xylosma	F		Variegated liriope lily tu	
Yucca elata	Yucca, soaptree	C,F		Big blue lily turf	C,F
Yucca recurvifolia	Yucca, pendulous	F	Lobelia erinus	Edging lobelia	C,F
			Lonicera japonica	Honeysuckle, Japanese	F
Groundcovers/Perennia			Mesembryanthemum	Ice plant (see label)	F
		ture Methods : Field Grown	crystallinum	,	
Scientific Name		tainer Grown	Monarda didyma	Bee Balm	C,F
Agapanthus africanus	Lily-of-the-Nile	C,F	Ophiopogon japonicus	Mondo grass	F
Ajuga spp.	Carpet bugle	0,1 F	Osteospermum fruticosum	Daisy, trailing African	F
Arctotheca calendula	Cape weed	r F	Pachysandra terminalis	Japanese spurge	F
Asparagus retrofractus	(No common name)	C,F	Pennisetum setaceum	Fountaingrass	C,F
Asparagus varieegata	Tree fern	C,F	Polystichum polyblepharum	Tassel fern	C,F
Aster novae-angliae	New England aster	C,F	Sedum brevifolium	Stonecrop	C,F
Aster novi-belgii	New York aster	C,F	Sedum kamtschaticum	Stonecrop	C,F
Athyrium nipponimcum	Japanese painter fern	C,F	Sedum spurium	Stonecrop, tworow	C,F
Brassica oleracea	Wild cabbage	C,F	Tulbaghia vioilacea	Society garlic	C,F
Callistepheus chinensis	China aster	C,F	Verbena rigida	Veined verbena	C,F
Campanula elatines	Bellflower	C,F	<i>Veronica</i> spp.	Speedwell	C,F
Carpobrotus edulis	Ice plant, largeleaf (see labe		Vinca major	Periwinkle, bigleaf	F
	(000 1000	'	Vinca minor	Periwinkle, dwarf	F

**Culture Methods** 

Seitentife Name         Cemmon Name         C = Container Grown         C = Container Grown           Achilleas p.D.         Yarrow         C,F           Antirithnum majus         Snapdragon         F           Caldadium bicolor         Caldaium, fancy leafed         F           Chrysanthemum sp.         Chrysanthemum         C,F           Mixed hybrid         Dahila         C,F           Chadum bicolor         Fancy-leaved caladium         F           Coreopsis serviculat         Threadlaet coreopsis         F           Coreopsis verticulat         Threadlaet coreopsis         F           Dianthus barbatus         Sweet William         F           Dianthus gradianopolitanus         Cheddar pink         C,F           Dianthus gradianopolitanus         Cheddar pink         C,F           Dianthus gradianopolitanus         Cheddar pink         C,F           Dimorphorbeca sp.         Marigold, cape         F           F         Gledidous         F           Dimorphorbeca sp.         Marigold, cape         F           F         Gludidous         F           Geum quellyon         Geum         F           Gladrolus bortulanus         Geum         F           Gypsophi		F = Field G			F = Field Grown
Antirrhinum majus         Snapdragon         F         apple         F           Caladium bicolor         Caldaium, fancy leafed         F         apricot         F           Chrysanthenum         C,F         avocado         F           Mixed hybrid         Dahlia         C,F         blackberry         F           Cadium bicolor         Fancy-leaved caladium         F         blackberry         F           Careopsis Ianceolata         Creeopsis         F         blackberry         F           Coreopsis Verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus parbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Bleeding heart         C,F         cherry, sweet         F           Dimorphotheca spp.         Marigold, cape         C,F         flederberry         F           Echinacea purpurea         Coneflower, purple         C,F         flibert         F           Echinacea purpurea         Coneflower, purple         C,F         flibert         F           Gladiolus hortulanus         Geam <th>Scientific Name</th> <th></th> <th></th> <th></th> <th></th>	Scientific Name				
Caladium bicolor         Caldaium, fancy leafed         F         a pricot         F           Chrysanthemum spp.         Chrysanthemum         C,F         avocado         F           Chrysanthemum spp.         Chrysanthemum         C,F         avocado         F           Chadhum bicolor         Fancy-leaved caladium         F         blueberry         F           Coreopsis lanceolata         Coreopsis         F         boysenberry         F           Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sour         F           Dianthus barbatus         Cheddar pink         C,F         cherry, sour         F           Dianthus gratianopolitanus         Cheddar pink         C,F         cherry, souet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         currant         F           Dicentra spectabilis         Bleeding heart         C,F         fel         currant         F           Dimorphotheca spp.         Blee daze         C,F         fig         gooseberry         F           Evolvalus nuttallianus         Blue daze         C,F         figber.         gra	Achillea spp.	Yarrow	C,F	almond	F
Chrysanthemum spp.         Chrysanthemum         C,F         avocado         F           Mixed hybrid         Dahlia         C,F         blackberry         F           Coreopsis         F         blueberry         F           Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Gheddar pink         C,F         cherry, sweet         F           Dianthus gratianopolitanus         Bleeding heart         C,F         dewberry         F           Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Echinacea purpurea         Coneflower, purple         C,F         fig	Antirrhinum majus	Snapdragon	F	apple	F
Mixed hybrid         Dahlia         C,F         blackberry         F           Cladium bicolor         Fancy-leaved caladium         F         blueberry         F           Coreopsis lanceolata         Coreopsis         F         boysenberry         F           Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         cherry, sweet         F           Dicentra spectabilis         Bleeding heart         C,F         currant         F           Dicentra spectabilis         Bleeding heart         C,F         dewberry         F           Echinacea purpurea         Coneflower, purple         C,F         filg         F           Echinacea purpurea         Coneflower, purple         C,F         filbert         F           Echinacea purpurea         Coneflower, purple         C,F         filbert         F           Echinacea purpurea         Coneflower, purple         C,F         filbert         F           <	Caladium bicolor	Caldaium, fancy leafed	F	apricot	F
Cladium bicolor         Fancy-leaved caladium         F         blueberry         F           Coreopsis Ianceolata         Coreopsis         F         boysenberry         F           Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         cherry, sweet         F           Dicantra spectabilis         Bleeding heart         C,F         devberry         F           Dimorphotheca spp.         Marigold, cape         F         eldevberry         F           Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Evolvulus nuttallianus         Gladiolus         F         grape, American         F           Gladiolus hortulanus         Gladiolus hortulanus         Gladiolus hortulanus         Gladiolus hortulanus         Gladiolus hortulanus         F         grape, American         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grape, European         F           Iris spp.         Iris, bearded         F         kiwi         F           Pelatry spical <td< td=""><td>Chrysanthemum spp.</td><td>Chrysanthemum</td><td>C,F</td><td>avocado</td><td>F</td></td<>	Chrysanthemum spp.	Chrysanthemum	C,F	avocado	F
Coreopsis Inceolata         Coreopsis         F         boysenberry         F           Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         currant         F           Dicentra spectabilis         Bleeding heart         C,F         dewberry         F           Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Echinacea purpurea         Conellower, purple         C,F         fig         F           Echinacea purpurea         Conellower, purple         C,F         filbert         F           Echinacea purpurea         Conellower, purple         C,F         filbert         F           Geum quellyon         Geum quellyon         Geum quellyon         Geum quellyon         Geum quellyon         Geum quellyo	Mixed hybrid	Dahlia	C,F	blackberry	F
Coreopsis verticulata         Threadleaf coreopsis         C,F         cherry, sour         F           Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         cherry, sweet         F           Dimorphotheca spp.         Marigold, cape         F         dewberry         F           Echinacea purpurea         Coneflower, purple         C,F         fig         F           Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus hortulanus         Gladiolus hortulanus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F         f           Iris spp.         Iris, bearded         F         kiwi         F         f           Iziatris spicata         Blazing star         C,F         Kumquat         C,F         e           Iziatris spicata         Geranium         F         lemon         F         e         e         e         e         e         e         e <td>Cladium bicolor</td> <td>Fancy-leaved caladium</td> <td>F</td> <td>blueberry</td> <td>F</td>	Cladium bicolor	Fancy-leaved caladium	F	blueberry	F
Dianthus barbatus         Sweet William         F         cherry, sweet         F           Dianthus gratianopolitanus         Cheddar pink         C,F         currant         F           Dicentra spectabilis         Bleeding heart         C,F         dewberry         F           Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Evolvulus nuttallianus         Blue daze         C,F         filibert         F           Evolvulus nuttallianus         Blue daze         C,F         filibert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gladiolus hortulanus         Gladiolus fortulanus         Gladiolus fortulanus         F           Gladiolus hortulanus         Gladiolus fortulanus         F         grape, European         F           Gladiolus hortulanus         Gladiolus fortulanus         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grape, European         F           Iris, bearded         F         kiwi         F           Liatris spicata         Blaziens fa	Coreopsis lanceolata	Coreopsis	F	boysenberry	F
Dianthus gratianopolitanus         Cheddar pink         C,F         currant         F           Dicentra spectabilis         Bleeding heart         C,F         dewberry         F           Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Echinacea purpurea         Coneflower, purple         C,F         fig           Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gladiolus hortulanus         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grape, European         F           Iris, bearded         F         grapefruit         F           Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         kumquat         C,F           Liatris spicata         Blazing star         C,F         kwin         F           Peturia spp.         Petunia         C,F         kumquat         C,F	Coreopsis verticulata	Threadleaf coreopsis	C,F	cherry, sour	F
Dicentra spectabilis         Bleeding heart         C,F         dewberry         F           Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Echinacea purpurea         Coneflower, purple         C,F         fig         F           Evolvulus nuttallianus         Blue daze         C,F         filibert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Glypsophila paniculata         Baby's breath         F         grape, American         F           Glypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grape, European         F           Iris spp.         Iris, bearded         F         grape fruit         F           Iris spicata         Blazing star         C,F         Kiwi         F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         Kumquat         F           Portulaca grandiflora         Moss, rose	Dianthus barbatus	Sweet William	F	cherry, sweet	F
Dimorphotheca spp.         Marigold, cape         F         elderberry         F           Echinacea purpurea         Coneflower, purple         C,F         fig         F           Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens Wallerana         Impatiens (Busy lizzie)         F         grapefruit         F           Iris, bearded         F         kiwi         F           Iris, spicata         Blazing star         C,F         Kumquat         C,F           Liatris spicata         Blazing star         C,F         kiwi         F           Liatris spicata         Blazing star         C,F         kumquat         C,F           Liatris spicata         Blazing star         C,F         kumquat         C,F           Liatris spicata         Blazing star         C,F         kwim         C,F           Peturja         Sase         F         macadamia nut         F	Dianthus gratianopolitanus	Cheddar pink	C,F	currant	F
Echinacea purpurea         Coneflower, purple         C,F         fig         f           Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grape fruit         F           Iris, spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         kumquat         C,F           Liatris spicata         Blazing star         C,F         kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Peturia spp.         Petunia         C,F         kumquat         C,F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Rosa spp.         Rose         F         olive         F           Rudbeckia fulgida         Blackeyed susan         C,F         orange <td>Dicentra spectabilis</td> <td>Bleeding heart</td> <td>C,F</td> <td>dewberry</td> <td>F</td>	Dicentra spectabilis	Bleeding heart	C,F	dewberry	F
Evolvulus nuttallianus         Blue daze         C,F         filbert         F           Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grapefruit         F           Iris spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         Kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         loganberry         F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Ranunculus asiaticus         F         pecarh         G           Rudbeckia fulgida         Blackeyed susan         C,F         orange         C,F           Rudbeckia fulgida	Dimorphotheca spp.	Marigold, cape	F	elderberry	F
Geum quellyon         Geum         F         gooseberry         F           Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grapefruit         F           Iris spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         Kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         loganberry         F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Ranunculus asiaticus         Ranunculus Persian         F         nectarine         F           Rosa spp.         Rose         F         olive         F           Rudbeckia fulgida         Blackeyed susan         C,F         orange         C,F           Rudbeckia hirta         Daisy, gloriosa (black-eyed Susan)         F         peach         F           Stokesia laevis         Aster, stokes         F	Echinacea purpurea	Coneflower, purple	C,F	fig	F
Gladiolus hortulanus         Gladiolus         F         grape, American         F           Gypsophila paniculata         Baby's breath         F         grape, European         F           Impatiens wallerana         Impatiens (Busy lizzie)         F         grapefruit         F           Iris spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         Kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         loganberry         F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Ranunculus asiaticus         Ranunculus, Persian         F         nectarine         F           Rosa spp.         Rose         F         olive         F           Rudbeckia fulgida         Blackeyed susan         C,F         orange         C,F           Rudbeckia hirta         Daisy, gloriosa (black-eyed Susan)         F         peach         F           Salvia spp.         Salvia (Sage)         F         pear         F           Stokesia laevis         Aster, stokes         F	Evolvulus nuttallianus	Blue daze	C,F	filbert	F
Gypsophila paniculataBaby's breathFgrape, EuropeanFImpatiens walleranaImpatiens (Busy lizzie)FgrapefruitFIris spp.Iris, beardedFkiwiFLiatris spicataBlazing starC,FKumquatC,FPelargonium hortorumGeraniumFlemonFPetunia spp.PetuniaC,FloganberryFPortulaca grandifloraMoss, roseFmacadamia nutFRanunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpeachFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnia, commonFpruneFraspberryraspberryraspberryraspberryraspberrywalnut, blackraspberrywalnut, blackF	Geum quellyon	Geum	F	gooseberry	F
Impatiens wallerana         Impatiens (Busy lizzie)         F         grapefruit         F           Iris spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         Kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         loganberry         F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Ranunculus asiaticus         Ranunculus, Persian         F         nectarine         F           Rosa spp.         Rose         F         olive         F           Rudbeckia fulgida         Blackeyed susan         C,F         orange         C,F           Rudbeckia hirta         Daisy, gloriosa (black-eyed Susan)         F         peach         F           Salvia spp.         Salvia (Sage)         F         pear         F           Stokesia laevis         Aster, stokes         F         pecan         C,F           Strelitzia reginae         Bird of paradise         F         pium         F           Viola wittrockiana         Pansy         F         pomegranate <td>Gladiolus hortulanus</td> <td>Gladiolus</td> <td>F</td> <td>grape, American</td> <td>F</td>	Gladiolus hortulanus	Gladiolus	F	grape, American	F
Iris spp.         Iris, bearded         F         kiwi         F           Liatris spicata         Blazing star         C,F         Kumquat         C,F           Pelargonium hortorum         Geranium         F         lemon         F           Petunia spp.         Petunia         C,F         loganberry         F           Portulaca grandiflora         Moss, rose         F         macadamia nut         F           Ranunculus asiaticus         Ranunculus, Persian         F         nectarine         F           Rosa spp.         Rose         F         olive         F           Rudbeckia fulgida         Blackeyed susan         C,F         orange         C,F           Rudbeckia hirta         Daisy, gloriosa (black-eyed Susan)         F         peach         F           Salvia spp.         Salvia (Sage)         F         pear         F           Stokesia laevis         Aster, stokes         F         pecan         C,F           Strelitzia reginae         Bird of paradise         F         pistachio         F           Tagetes spp.         Marigold         F         pomegranate         F           Viola wittrockiana         Pansy         F         prune         raspberr	Gypsophila paniculata	Baby's breath	F	grape, European	F
Liatris spicataBlazing starC,FKumquatC,FPelargonium hortorumGeraniumFlemonFPetunia spp.PetuniaC,FloganberryFPortulaca grandifloraMoss, roseFmacadamia nutFRanunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Impatiens wallerana	Impatiens (Busy lizzie)	F	grapefruit	F
Pelargonium hortorumGeraniumFlemonFPetunia spp.PetuniaC,FloganberryFPortulaca grandifloraMoss, roseFmacadamia nutFRanunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFprune raspberry walnut, blackF	<i>Iris</i> spp.	Iris, bearded	F	kiwi	F
Petunia spp.PetuniaC,FloganberryFPortulaca grandifloraMoss, roseFmacadamia nutFRanunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Liatris spicata	Blazing star	C,F	Kumquat	C,F
Portulaca grandifloraMoss, roseFmacadamia nutFRanunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Pelargonium hortorum	Geranium	F	lemon	F
Ranunculus asiaticusRanunculus, PersianFnectarineFRosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Petunia spp.	Petunia	C,F	loganberry	F
Rosa spp.RoseFoliveFRudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Portulaca grandiflora	Moss, rose	F	macadamia nut	F
Rudbeckia fulgidaBlackeyed susanC,ForangeC,FRudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Ranunculus asiaticus	Ranunculus, Persian	F	nectarine	F
Rudbeckia hirtaDaisy, gloriosa (black-eyed Susan)FpeachFSalvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Rosa spp.	Rose	F	olive	F
Salvia spp.Salvia (Sage)FpearFStokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Rudbeckia fulgida	Blackeyed susan	C,F	orange	C,F
Stokesia laevisAster, stokesFpecanC,FStrelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberry walnut, blackF	Rudbeckia hirta	Daisy, gloriosa (black-eyed Susan)	F	peach	F
Strelitzia reginaeBird of paradiseFpistachioFTagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberryraspberryFwalnut, blackF	Salvia spp.	Salvia (Sage)	F	pear	F
Tagetes spp.MarigoldFplumFViola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberryraspberryFwalnut, blackF	Stokesia laevis	Aster, stokes	F	pecan	C,F
Viola wittrockianaPansyFpomegranateFZinnea elegansZinnia, commonFpruneFraspberryraspberryFwalnut, blackF	Strelitzia reginae	Bird of paradise	F	pistachio	F
Zinnea elegans Zinnia, common F prune F raspberry F walnut, black F	Tagetes spp.	Marigold	F	plum	F
raspberry F walnut, black F	Viola wittrockiana	Pansy	F	pomegranate	F
walnut, black	Zinnea elegans	Zinnia, common	F	prune	F
				raspberry	F
walnut, English F				walnut, black	F
				walnut, English	F

**Culture Methods** 

 $<sup>^\</sup>dagger$  Non-bearing plants are defined as those that will not bear fruit for at least one year after treatment.

### Shade house Areas

SURFLAN FLEX may be applied to drainage areas under benches in open shade house-type structures where the natural flow of air is unimpeded. Do not apply in enclosed greenhouses or in enclosed shade house-type structures. Do not apply within 3 weeks prior to enclosure of greenhouse or poly-type structures.

### **Ornamental Bulbs**

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

Follow all instructions provided in the "Use Information" and "Precautions and Restrictions" sections of this label.

### **Broadcast Application Rates**

		SURFL	AN FLEX	Minimum Time	Total Amount
Time of Application	Soil Texture	(qt/acre)	(fl oz/ 1,000 sq ft)	Between Applications (months)	Allowed Per Year (qt/acre)
Fall	Coarse	0.75 - 0.94 qts/A	0.5 - 0.63 fl oz/ 1,000 sq ft	3	1.90 qts/A
Fall	Medium and Fine	1.50 - 1.90 qts/A	1.0 - 1.25 fl oz/ 1,000 sq ft	3	2.80 qts/A
Feb March	All Soil Textures	0.75 - 0.94 qts/A	0.5 - 0.63 fl oz/ 1,000 sq ft	3	2.80 qts/A

### **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 (1) inch in diameter.

### Warm Season Turfgrasses

anchored root system.

SURFLAN FLEX 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, zoysiagrass, and 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. Use SURFLAN FLEX only as a part of a total turf management program that includes good fertilization practices.

Follow all instructions provided in the "Use Information" and "Precautions and Restrictions" sections of this label.

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

SURFLAN FLEX will not control emerged weeds. Successful preemergence control of weeds listed on this label requires that SURFLAN FLEX 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. SURFLAN FLEX 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 root systems.

Apply SURFLAN FLEX only to healthy, well-established turf that has a well-

**Broadcast Application Rates (Warm Season Turfgrasses)** 

	SURFLAN FLEX		Minimum Time	Total Amount
Use Area	(qt/acre)	(fl oz/ 1,000 sq ft)	Between Applications (months)	Allowed Per Year (qt/acre)
All, except Florida	1.50 - 2.50 qts/A	1.25 - 1.90 fl oz/ 1,000 sq ft	3	7.5 qts/A
Florida	1.50 - 1.90 qts/A	1.25 - 1.90 fl oz/ 1,000 sq ft	3	5.6 qts/A

### **Special Use Precautions:**

To avoid possible injury, do not apply SURFLAN FLEX to:

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

### **Application Timing and Frequency**

SURFLAN FLEX can be applied in the spring for summer annual grass and broadleaf weed control, and in the fall for winter annual broadleaf weed control.

Do not apply SURFLAN FLEX in the spring or early summer to tall fescue turfgrass reseeded the previous fall. In such cases, apply Balan\* 2.5G granular herbicide at 60-80 pounds per acre in early summer (Round 1) and SURFLAN FLEX at 1.50 - 1.90 quarts per acre approximately eight weeks later (Round 2). Applications to established tall fescue: apply 1.50 - 1.90 quarts per acre of SURFLAN FLEX in an initial application, followed by a second application of 1.50 - 1.90 quarts per acre 8-10 weeks later. In Bermudagrass areas that have been overseeded with winter grasses, a spring application of SURFLAN FLEX will thin the overseeded grasses.

### 1. Summer Annual Grasses and Broadleaf Weeds

**Single Application Program:** Apply 2.00 - 2.25 quarts per acre of SURFLAN FLEX in late winter or early spring, prior to the onset of conditions favorable for annual weed germination.

**Split Application Program:** As an alternative to a single application program, SURFLAN FLEX 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 1.50 - 1.90 quarts per acre of SURFLAN FLEX in an initial application, followed by a second application of 1.50 - 1.90 quarts per acre 8-10 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 FLEX.

#### 2. Winter Annual Broadleaf Weeds

Apply SURFLAN FLEX as a preemergence treatment in late summer or early fall, prior to the expected germination period for winter annual broadleaf weeds. If annual bluegrass infestation is severe and its elimination will result in thinning of turfgrass cover, apply SURFLAN FLEX at 1.50 - 1.90 quarts per acre. If thinning of turfgrass cover is not a potential problem, SURFLAN FLEX may be applied at 2.00 - 2.25 quarts per acre.

### Weed Control in Florida

In Florida, apply 1.50 - 1.90 quarts per acre of SURFLAN FLEX three times per year, or every 90-100 days, in the fall, early spring, and early summer. Do not apply more than 1.50 - 1.90 quarts per acre of SURFLAN FLEX in any single application.

### **Application Equipment**

Apply SURFLAN FLEX evenly over the turfgrass area. Avoid spray pattern skips and overlaps that may result in incomplete coverage or overapplication. 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. Delay reseeding for at least 90-120 days following application of SURFLAN FLEX. 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 FLEX, increase the seeding rate and use equipment designed to place seed in full contact with soil (such as the Rogers Aero Seeder).

### Weeds Controlled (Suppressed) Warm Season Turfgrass

### **Annual Grasses Controlled**

#### **Summer Annuals:**

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

### **Annual Broadleaf Weeds Controlled**

### Summer Annuals:

Julilliti Alliluais.	
Common Name	Scientific Name
carpetweed	Mollugo verticillata
knotweed, prostrate	Polygonum aviculare
purslane, common	Portulaca oleracea
Winter Annuals:	
Common Name	Scientific Name
chickweed, common	Stellaria media
henbit	Lamium amplexicaule

### **Broadleaf Weeds Suppressed**

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

### **Christmas Tree Plantations**

### SURFLAN FLEX - Used Alone

Apply SURFLAN FLEX 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.)*. Follow all instructions provided in the "Use Information" and "Precautions

### **Broadcast Application Rates**

and Restrictions" sections of this label.

	SURFLAN FLEX		Minimum Time	Total Amount
Length of Control	(qt/acre)	(fl oz/ 1,000 sq ft)	Between Applications (months)	Allowed Per Year (qt/acre)
2 - 4 months	2.0 - 2.5 qts/A	1.5 - 1.9 fl oz/ 1,000 sq ft	2 months	10 qts
5 - 7 months	4.0 - 5.0 qts/A	3.0 - 3.75 fl oz/ 1,000 sq ft	2 months	10 qts

#### Tank Mix Combinations

Tank mix combinations of SURFLAN FLEX 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 label of the product to be tank mixed with SURFLAN FLEX for specific use directions, precautions and limitations before use.

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

### **Special Use Precautions:**

- Do not apply to Douglas-fir (Pseudotsuga menziesii).
- Do not apply to seedbeds or seedling transplant beds.
- Apply only to established plantings. Established plantings 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.
- Do not apply sprays containing glyphosate herbicide over the top of Christmas tree plantings.
- Extreme care must be exercised to avoid contact of spray containing glyphosate herbicide with foliage and stems of Christmas trees or severe damage or death may result.

### Non-cropland Areas and Industrial Sites

Follow all instructions provided in the "Use Information" and "Precautions and Restrictions" sections of this label.

### **Broadcast Application Rates**

	SURFLAN FLEX		Minimum Time	Total Amount
Length of Control	(qt/acre)	(fl oz/ 1,000 sq ft)	Between Applications (months)	Allowed Per Year (qt/acre)
2 - 4 months	2.0 - 2.5 qts/A	1.50 - 1.90 fl oz/ 1,000 sq ft	2 months	7.5 qts/A
5 - 7 months	4.0 - 5.0 qts/A	3.0 - 3.75 fl oz/ 1,000 sq ft	4 months	15 qts/A
8 - 10 months	6.0 - 7.5 qts/A	4.5 - 5.6 fl oz/ 1,000 sq ft	8 months	15 qts/A

### **Tank Mix Combinations**

Tank mix combinations of SURFLAN FLEX plus glyphosate and many other labeled herbicides may be used to control undesirable vegetation in 1) **non-cropland areas** such as roadsides, rights-of-way, etc, or 2) **industrial sites** such as utility substations, highway guard rails, sign posts, and delineators. When applied according to labeled 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.

### 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.

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