

62719-424

8-8-2006

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Pesticide Programs**  
**Registration Division (7505P)**  
**Ariel Rios Building**  
**1200 Pennsylvania Ave., NW**  
**Washington, D.C. 20460**

EPA Reg. Number:  
62719-424

Date of Issuance:  
AUG 8 2006

NOTICE OF PESTICIDE:  
 \_ Registration  
X Reregistration  
 (under FIFRA, as amended)

Term of Issuance: **Unconditional**

Name of Pesticide Product:  
GOAL 2XL HERBICIDE

Name and Address of Registrant (include ZIP Code):

DOW AGROSCIENCES, LLC.  
 9330 ZIONSVILLE RD.  
 INDIANAPOLIS, IN 46268-1054

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Reregistration Eligibility Document(s), EPA has reregistered the product listed above. The label is acceptable provided the following revision is made:

1. Revise the FIRST AID statements in the preferred order as per the acute toxicity review:

- IF ON SKIN OR CLOTHING.....
- IF SWALLOWED.....
- IF IN EYES.....

2. Modify the Hazards to Humans and Domestic Animals section to read as:

Cause skin irradiation. Cause moderate eye irradiation. Harmful if swallowed. Harmful if absorbed through skin. Do not get on skin, or clothing. Avoid contact with eyes. Wear coveralls short-sleeved shirt and short pants, socks, chemical resistant footwear, and chemical-resistant gloves (such as Barrier Laminate, Viton, Selection Category G). For overhead exposure wear chemical resistant headgear. When mixing and loading or cleaning equipment wear a chemical resistant apron.

3. Under Environmental Hazards, delete "fish" from the statement; "This product is toxic to aquatic invertebrates and fish" and add "wildlife".

Signature of Approving Official:

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

Date:

AUG 8 2006

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Enclosed is a copy of your label stamped "Accepted" with comment. This action is taken under the authority of section 4 (g) (2) (c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended.

Reregistration under this section does not eliminated the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

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**Base Label:**

(Logo) Dow AgroSciences

**Goal<sup>®</sup> 2XL**

## Active Ingredient

oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy) 4-(trifluoromethyl) .....	22.3%
Inert Ingredients .....	77.7%
Total .....	100.0%

Contains 2 pounds active ingredient per gallon.

Contains petroleum distillates

**ACCEPTED**  
with **COMMENTS**  
In EPA Letter Dated:

AUG 8 2006

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

62719-424**Keep Out of Reach of Children****WARNING AVISO**

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 Substantial But Temporary Eye Injury • Causes Skin Irritation • Harmful If Swallowed Or Absorbed Through The Skin • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals**

Do not get in eyes, on skin or on clothing.

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

**Mixers, loaders and applicators using engineering controls (see Engineering Controls requirements below) must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate) when mixing and loading
- Chemical-resistant apron when mixing and loading

**All other mixers, loaders, applicators and other handlers must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate)
- Protective eyewear (goggles or face shield)
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when exposed to the product concentrate

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.

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**Engineering Controls:** Mixers and loaders supporting aerial applications to fallow land or ground applications to corn, cotton, or soybeans must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], and must:

- Wear the personal protective equipment required above for mixers/loaders using engineering controls
- Wear protective eyewear if the system operates under pressure, and
- Be provided and have immediately available for use in case of emergency, such as a broken package, spill, or equipment breakdown, coveralls and chemical-resistant footwear.

Handlers performing applications to corn must use an enclosed cab that meets the definition in the Worker Protection Standard for agricultural pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- Wear the personal protective equipment required above for applicators using engineering controls
- Be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and chemical-resistant headgear, if overhead exposure.
- Take off any PPE that was worn in the treated area before reentering the cab, and
- Store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)];

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 contaminated 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 eye. Call a poison control center or doctor for treatment advice.

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

**If swallowed:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage. This product may pose an aspiration pneumonia hazard. Contains petroleum distillates

**Hot Line Number:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 day or night, for emergency treatment information.

### Environmental Hazards

This product is toxic to aquatic invertebrates and fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas

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may be hazardous to aquatic organisms in neighboring areas. See Directions for Use for additional restrictions. Do not contaminate water when disposing of equipment wash water.

### **Agricultural Use Requirements**

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

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

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

### **Shake Well Before Using**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

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

EPA Reg. No. 62719-424

EPA Est. 707-PA-01

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Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

## **Herbicide**

Net Contents \_\_ gal

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**Label Booklet:**

(Logo) Dow AgroSciences

# Goal<sup>®</sup> 2XL

**Active Ingredient**

oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)	
4-(trifluoromethyl) .....	22.3%
Inert Ingredients .....	77.7%
Total .....	100.0%

Contains 2 pounds active ingredient per gallon.  
Contains petroleum distillates

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Refer to inside of label booklet for Precautionary Statements and Directions for Use including Storage and Disposal.

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Shake Well Before Using

## Herbicide

Net Contents \_\_ gal

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**Precautionary Statements**

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**Hazards to Humans and Domestic Animals****WARNING**

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### 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.

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**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, except for the following:

- Onions, garlic and horseradish: The REI is 48 hours
- Conifer seedlings: The REI is 3 days
- Conifer trees: The REI is 6 days

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 made of any waterproof material
- 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.

**Do not enter or allow others to enter until sprays have dried.**

**Storage and Disposal:**

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

**Storage:** Keep from Freezing. Store above 32°F

**Pesticide Disposal:** Pesticide Wastes are toxic. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal**

**Plastic Containers:** Triple rinse (or equivalent). 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.

**Metal Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Steps to be Taken In Case Material Is Released or Spilled:** Ventilate area. Avoid breathing vapors.

Use MSHA/NIOSH self-contained breathing apparatus or airline respirator for large spills in confined areas. Dike the spill with inert material (sand, earth, etc.) and transfer the liquid or solid diking material to separate containers for recovery or disposal. Remove contaminated clothing promptly and wash exposed skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and bodies of water.

**GENERAL USE INFORMATION**

Goal® 2XL herbicide is a selective herbicide for postemergence and preemergence residual weed control in labeled crops. Directions provided in the General Use Information section of this label apply to all uses

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of this product. Use directions for listed crops are provided in the Crop-Specific Use Directions section of this label.

### Use Restrictions

The following use restrictions apply to all labeled uses of Goal 2XL (Refer to directions for use for individual crops for additional crop-specific use restrictions.):

- Do not graze or harvest plants from areas treated with Goal 2XL for feed or forage.
- Apply Goal 2XL only with ground equipment unless otherwise specified in crop-specific use directions.
- Goal 2XL is phytotoxic to plant foliage. Avoid accidental spray contact or drift with established crops. Do not apply when weather conditions favor drift to non-target areas.
- Some labeled crops are tolerant to over-the-top applications of Goal 2XL if applied during dormancy. Do not make over-the-top applications unless specifically allowed in crop-specific use directions.
- Do not treat ditch banks or waterways with Goal 2XL or contaminate water used for irrigation or domestic purposes.
- Do not apply Goal 2XL in enclosed greenhouses as foliage injury will result.

### Spray Drift Buffer Restrictions

- A 25 foot vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not allow spray to drift from the application site and contact people, structures people may occupy at any time and the associated property, parks and reaction areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.
- For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy when wind speed is 10 mph or less at the application site as measured by an anemometer.
- Use coarse spray according to ASAE 572 definition for standard nozzles or VMD of 475 microns for spinning atomizer nozzles.
- The applicator also must use all other measures necessary to control drift.

### Rotation Crop Restrictions

- Do not rotate to small-grain crops (includes barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice) within 10 months following an application of Goal 2XL.
- Do not direct seed any crop, other than a crop labeled for use with Goal 2XL, within 60 days following application.
- Do not transplant seedlings of crops, other than crops labeled for use with Goal 2XL, within 30 days following application.
- **IMPORTANT: Unless otherwise specified elsewhere in this label or Dow AgroSciences supplemental label or product bulletin, treated soil must be thoroughly mixed to a depth of 4 inches after harvest (or abandoning) of the treated crop but prior to planting of the rotational crop. Failure to achieve thorough and complete mixing or to follow the required minimum plant-back interval may result in crop injury, stand reduction and/or vigor reduction of the plant-back crop. See specific fallow bed labeling instructions for required treatment-to-planting intervals following application of Goal 2XL to fallow beds or fallow fields.**

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**Weeds Controlled**

<b>Common Name</b>	<b>Scientific Name</b>
ageratum	<i>Ageratum conyzoides</i>
amaranth, spiny	<i>Amaranthus spinosus</i>
balsamapple	<i>Momordica charantia</i>
barnyardgrass (watergrass) †	<i>Echinochloa crus-galli</i>
bedstraw, catchweed	<i>Galium aparine</i>
bittercress, lesser	<i>Cardamine oligosperma</i>
bluegrass, annual †	<i>Poa annua</i>
buckwheat, wild	<i>Polygonum convolvulus</i>
burclover	<i>Medicago hispida</i>
buttercup, smallflower	<i>Ranunculus abortivus</i>
buttonweed	<i>Borreria laevis</i>
camphorweed	<i>Heterotheca subaxillaris</i>
canarygrass (annual)	<i>Phalaris canariensis</i>
carpetweed	<i>Mollugo verticillata</i>
cheeseweed (malva)	<i>Malva parviflora</i>
clover, red †	<i>Trifolium pratense</i>
clover, white †	<i>Trifolium repens</i>
cocklebur, common	<i>Xanthium pensylvanicum</i>
crabgrass, large (hairy) †	<i>Digitaria sanguinalis</i>
crotalaria	<i>Crotalaria species</i>
croton, tropic	<i>Croton glandulosus</i>
cudweed, narrowleaf	<i>Gnaphalium falcatum</i>
eveningprimrose, cutleaf	<i>Oenothera laciniata</i>
fiddleneck, coast †	<i>Amsinckia intermedia</i>
filaree, broadleaf	<i>Erodium botrys</i>
filaree, redstem	<i>Erodium cicutarium</i>
filaree, whitestem	<i>Erodium moschatum</i>
fireweed (from seed)	<i>Epilobium angustifolium</i>
flixweed	<i>Descurainia sophia</i>
foxtail, giant †	<i>Setaria faberi</i>
foxtail, green	<i>Setaria viridis</i>
foxtail, yellow	<i>Setaria lutescens</i>
geranium, Carolina	<i>Geranium carolinianum</i>
goosegrass †	<i>Eleusine indica</i>
groundcherry, cutleaf	<i>Physalis angulata</i>
groundcherry, Wright	<i>Physalis wrightii</i>
groundsel, common	<i>Senecio vulgaris</i>
henbit	<i>Lamium amplexicaule</i>
horseweed (maretail)	<i>Conyza canadensis</i>
jimsonweed	<i>Datura stramonium</i>
johnsongrass, seedling	<i>Sorghum halepense</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
ladysthumb (smartweed)	<i>Polygonum persicaria</i>
lambsquarters, common	<i>Chenopodium album</i>
lettuce, prickly (china lettuce)	<i>Lactuca serriola</i>
mallow, little (malva)	<i>Malva parviflora</i>
mayweed (dog fennel)	<i>Anthemis cotula</i>
minerslettuce	<i>Montia perfoliata</i>
morningglory species, annual	<i>Ipomoea species</i>
morningglory, ivyleaf †	<i>Ipomoea hederacea</i>
morningglory, tall †	<i>Ipomoea purpurea</i>
mustard, black	<i>Brassica nigra</i>
mustard, blue (purple mustard)	<i>Chorispora tenella</i>

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mustard, common yellow	<i>Brassica campestris</i>
mustard, hedge	<i>Sisymbrium officinale</i>
mustard, tumble (Jim hill mustard)	<i>Sisymbrium altissimum</i>
mustard, wild	<i>Brassica kaber</i>
nettle, burning	<i>Urtica urens</i>
nightshade, American black	<i>Solanum americanum</i>
nightshade, black	<i>Solanum nigrum</i>
nightshade, hairy	<i>Solanum sarrachoides</i>
oats, wild	<i>Avena fatua</i>
orach, red	<i>Atriplex rosea</i>
oxalis (bermuda buttercup)	<i>Oxalis pes-caprae</i>
panicum, fall	<i>Panicum dichotomiflorum</i>
pepperweed, Virginia	<i>Lepidium virginicum</i>
pepperweed, yellowflower	<i>Lepidium perfoliatum</i>
pigweed, prostrate	<i>Amaranthus blitoides</i>
pigweed, redroot	<i>Amaranthus retroflexus</i>
pimpernel, scarlet	<i>Anagallis arvensis</i>
poinsettia, wild	<i>Euphorbia heterophylla</i>
puncturevine	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
pusley, florida	<i>Richardia scabra</i>
ragweed, common	<i>Ambrosia artemisiifolia</i>
redmaids	<i>Galandrinia caulescens</i>
rocket, London	<i>Sisymbrium irio</i>
ryegrass, Italian	<i>Lolium multiflorum</i>
sage, lanceleaf	<i>Salvia reflexa</i>
sandbur, field	<i>Cenchrus incertus</i>
sandspurry, red	<i>Spergularia rubra</i>
sesbania, hemp	<i>Sesbania exaltata</i>
shepherdspurse †	<i>Capsella bursa-pastoris</i>
sicklepod	<i>Cassia obtusifolia</i>
sida, prickly (teaweed)	<i>Sida spinosa</i>
signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
smartweed, pennsylvania	<i>Polygonum pennsylvanicum</i>
sorrel, red (from seed)	<i>Rumex acetosella</i>
sowthistle, annual	<i>Sonchus oleraceus</i>
speedwell, birdseye	<i>Veronica persica</i>
spurge, garden	<i>Euphorbia hirta</i>
spurge, prostrate ††	<i>Euphorbia supina</i>
spurge, spotted ††	<i>Euphorbia maculata</i>
spurry, corn	<i>Spergula arvensis</i>
tansymustard	<i>Descurainia pinnata</i>
thistle, bull ††	<i>Cirsium vulgare</i>
thistle, Russian	<i>Salsola kali</i>
velvetleaf	<i>Abutilon theophrasti</i>
witchgrass	<i>Panicum capillare</i>
witchweed	<i>Striga asiatica</i>
woodsorrel, common yellow ††	<i>Oxalis stricta</i>

† Highest rate and/or multiple applications may be required for acceptable control.

†† Preemergence control only.

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## Application Methods and Recommended Cultural Practices

### Preemergence Weed Control

Apply the recommended rate in a broadcast spray volume of 15 or more gallons of water per acre using calibrated spray equipment capable of uniform application to the soil surface. Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence. Preemergence weed control is most effective when Goal 2XL is applied to soil surfaces that are clean (free of crop or weed residues or clippings) and weed-free. Prior to application, weed or crop residues should be removed by thorough incorporation into the soil using tillage equipment or by blowing the area to be treated. At least *0.25 inch of irrigation or rainfall is required to activate Goal 2XL and should occur within 3 to 4 weeks after application.* For optimum results, Goal 2XL should be applied to prepared beds or soil surfaces that will be left undisturbed during the time period for which weed control is desired. Cultural practices that disturb or redistribute surface soil following treatment with Goal 2XL such as cutting water furrows will reduce weed control effectiveness.

**Application Rates and Rate Ranges:** Where rate ranges are given, use the lower rate in the rate range on coarse texture soils with less than 1% organic matter and lighter weed infestations. Use higher rates in the rate range on medium to fine texture soils, soils containing greater than 1% organic matter, heavy weed infestations, or for extended residual preemergence weed control.

### Postemergence Weed Control

Apply the recommended rate in a broadcast spray volume of 20 or more gallons of water per acre (a minimum 10 gallons if applying Goal 2XL in tank mix with glyphosate). Because Goal 2XL is a contact herbicide, complete and uniform coverage of weed foliage is essential for optimum postemergence control. Increase the spray volume to ensure complete and uniform coverage as weed height and density increases or in the presence of heavy trash (weed or crop residue). Postemergence applications of Goal 2XL are most effective when made to weeds at the seedling stage. Applications made later than the 4-inch or 4 leaf stage may result in partial control or suppression. Postemergence applications should be made to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% v/v (2 pints per 100 gallons of spray) of an 80% active nonionic surfactant, labeled for application to growing crops, will enhance herbicidal effectiveness in controlling emerged weeds.

**Postemergence Application Rates:** Where a rate range is given, use a higher rate in the rate range for heavy weed infestations, weeds in advanced stages of growth or for extended residual preemergence weed control following control of existing emerged weeds.

### Ground Application

**Ground Broadcast:** Apply Goal 2XL using conventional low-pressure ground spray equipment with flat fan spray nozzles. Follow manufacturer's recommendation for spraying pressure and boom height. An off-center (OC) nozzle positioned at the end of the boom may be desired. Check calibration of spray equipment before each use.

**Directed Sprays:** Apply Goal 2XL as a coarse low-pressure spray in a spray volume of 20 or more gallons of spray per acre (broadcast basis). Follow manufacturer's recommendations for nozzle spacing and operating pressure. Spray should be directed toward the soil at the base of the crop. In row crops, use a minimum of 2 flat fan nozzles per row (one on each side) and for optimum spray coverage use 4 flat fan nozzles per row (two on each side). The 2 forward nozzles should point forward and downward while the rear nozzles should point to the rear and downward. With either sprayer system, nozzles should be adjusted to cover the weed foliage but minimize contact with the crop. Do not apply with hollow cone nozzles.

**IMPORTANT:** Goal 2XL is a contact herbicide. Contact of sprays or drift with foliage or green stems can cause severe crop injury. Use directed sprays and spray shields and/or leaf lifters as necessary to minimize contact of spray or drift with crop foliage or stems. Young green stems of woody plants are also susceptible to injury from spray contact. Potential for injury to woody

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stems diminishes with loss of green color and the development of relatively impervious non-living corky tissue (bark) on the surface of the stem.

**Band Application:** Application rates listed in this label are for broadcast application. For band application, the rate per broadcast acre should be reduced according to the following formula:

$$\begin{matrix} \text{Band Width (in inches)} & \times & \text{Rate per} & = & \text{Amount Needed per Acre} \\ \text{Row Width (in inches)} & & \text{Broadcast Acre} & & \text{for Banded Application} \end{matrix}$$

**Spot Application**

For spot application, apply sprays uniformly to soil for preemergence weed control or on a spray-to-wet basis for postemergence weed control. Mix the required amount of Goal 2XL with the recommended amount of water. For preemergence weed control, use one-half to one gallon of spray per 1000 sq ft. For postemergence weed control use a minimum of 1 gallon of spray per 1000 sq ft and add an 80% nonionic surfactant at the rate of 0.5 fl oz (1 Tbs) per gallon of spray. If making spot applications within an established crop, use coarse low-pressure sprays and direct the spray to the soil beneath the plants. To avoid crop injury, do not allow spray to contact leaves and stems of herbaceous plants or leaves or green stems of woody plants.

Amount of Goal 2XL Required to Treat 1000 sq ft at Specified Application Rate					
0.5 pt/acre	1.0 pt/acre	2.0 pt/acre	3.0 pt/acre	4.0 pt/acre	8.0 pt/acre
0.2 fl oz (5.5 ml)	0.4 fl oz (11 ml)	0.75 fl oz (22 ml)	1.1 fl oz (33 ml)	1.5 fl oz (44 ml)	3.0 fl oz (88 ml)

1 pint = 16 fl oz; 1 fl oz = 29.6 (30) ml

**Aerial Application**

Use aerial boom equipment designed for use with herbicides and a minimum spray volume of 10 gallons per acre (5 gallons per acre if tank mixed with glyphosate). **Do not aerially apply Goal 2XL unless crop-specific use directions specifically allow and provide directions for aerial application.**

**AVOID DRIFT:** Exercise extreme care to avoid herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result. Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Adhere to the following guidelines when aerial applications are to be made.

**Spray Drift Management (Aerial Application):** Avoiding spray drift at the application site is the responsibility of the applicator. The potential for spray drift is controlled by the interaction of many equipment-and-weather-related factors. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator must adhere to the following requirements when Goal 2XL is aerially applied:

1. Do not apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.

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2. When wind speeds are 5 mph or less, maintain a minimum downwind buffer zone of at least 1/2 mile from all crops and desirable vegetation, except the following:  
Maintain a minimum downwind buffer zone of:
  - 150 feet from dormant treefruit/nut/vine crops and overwintering sugar beets.
  - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets, and non-targeted vegetable fallow beds.
3. When wind speeds are between 5 and 10 mph, downwind buffer zones in excess of those listed above are suggested.
4. For upwind and side borders, maintain a minimum buffer zone of 150 feet from any non-targeted vegetable fallow bed, crop, or desirable vegetation.

The use of a drift control agent may be required by local regulations. However, the drift control agent may decrease the weed control effectiveness.

**Important:** Aerial applicators must be familiar with the label for Goal 2XL and follow all applicable use precautions. Applying Goal 2XL in a manner other than recommended in this label is done at the user's risk. Users are responsible for all loss or damage resulting from aerial spraying. In addition, aerial applicators should follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, the most restrictive limitations apply.

### Chemigation Instructions

Do not apply this product through any irrigation system unless the instructions for chemigation are followed. **Do not apply Goal 2XL through chemigation equipment unless chemigation is allowed by Crop-Specific Use Directions.**

Apply this product only through sprinkler (center pivot, solid set, portable lateral, or low-volume (micro sprinkler)), drip (trickle), or flood (basin) irrigation systems. Refer to use directions for specific crops for instructions as to which type of irrigation system may be used. Do not apply this product through any other type of irrigation system.

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### Sprinkler Chemigation (Foliar Spray Uses)

For sprinkler irrigation, sufficient water should be applied at the beginning of the irrigation period to insure uniform wetting of the plant and/or soil surfaces. Meter Goal 2XL into the sprinkler irrigation system at a continuous uniform rate during the middle 1/3 of the irrigation period to allow for uniform distribution to target weeds and/or soil surface. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. During sprinkler irrigation, sufficient water should be applied to insure water penetration to a depth of two inches.

**AVOID DRIFT: Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Use the following guidelines when applications of Goal 2XL are made through sprinkler irrigation equipment:**

1. Do not apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.



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2. When wind speeds are 5 mph or less, maintain a minimum downwind buffer zone of at least ½ mile from all crops and desirable vegetation, except for the following:  
Maintain a minimum downwind buffer zone of:
  - 150 feet from dormant treefruit, dormant vines and overwintering sugar beets.
  - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets and vegetable fallow beds.
3. When wind speeds are between 5 and 10 mph, downwind buffer zones in excess of those listed above are suggested.
4. For upwind and side borders, maintain a minimum buffer zone of 150 feet from any vegetable fallow bed, crop, or desirable vegetation.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Flood (Basin) Chemigation (Soil Drench Uses)**

Goal 2XL should be continuously metered into the water during the entire irrigation period. Agitation in the pesticide supply tank is suggested. Best weed control results from Goal 2XL applied through flood (basin) irrigation systems are obtained when a uniform distribution and flow of irrigation water is maintained over level land.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain functional automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## Drip (Trickle) Chemigation (Soil Drench Uses)

To achieve optimum distribution of Goal 2XL in the soil surface, meter Goal 2XL at a continuous uniform rate during the middle 1/3 of the irrigation period. For best results, Goal 2XL should be uniformly distributed across the wetted area to help reduce the "ring effect" of weed escapes. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system.

To apply a pesticide using drip (trickle) chemigation, the chemigation system must meet the following specifications:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pipe and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## Chemigation Calibration: For Low-Volume Sprinklers (Microsprinklers) and Drip (Trickle) Irrigation Systems

Calculation of use rate is based on wetted area around emitters - NOT on grove acres. To determine correct amount of GOAL 2XL, use the following formula:

1. Treated area per each emitter = A  
 $A = 3.14 \times (\text{radius} \times \text{radius})$

**Example:** If the average distance from emitter to perimeter of wetted area measured at the soil surface is 13 inches, then  
 $A = 3.14 \times (13" \times 13")$   
 $A = 3.14 \times (169")$   
 $A = 530.7$  square inches

2. The area in square feet wet in each acre = B  
 $B = \frac{A \times \text{emitters/acre}}{144}$

**Example:** If there are 300 emitters per acre, then  
 $B = \frac{530.7 \times 300}{144} = B = 1105.6$  square feet wetted per acre

3. The total area (in square feet) wet by your system = C  
 $C = B \times \text{acres covered by system}$

**Example:** If the system covers 20 acres, then  
 $C = 1105.6$  square feet per acre  $\times$  20 acres  
 $C = 22,112$  square feet wetted by system

4. Amount of GOAL 2XL to inject = S  
 $\text{Rate per treated acre of GOAL 2XL} = R$

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in

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$$S = \frac{C \times R}{43,560} = \text{quarts of GOAL 2XL}$$

**Example:** If the desired application rate per treated acre is 1 quart of GOAL 2XL, then

$$S = \frac{22,112 \times 1.0}{43,560} = S = 0.507 \text{ quarts of GOAL 2XL should be injected into system.}$$

**Note:** Select the proper rate based on weed spectrum and desired length of control (See **Rate Ranges** section below).

### Chemigation Systems Connected to Public Water Systems

If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

### Mixing Directions

**Shake well before use.** Fill the spray tank at least one-third full of clean water. With the pump and agitator running, add the recommended amount of herbicides to the spray tank. The order of addition to the spray tank should be (1) wettable powders, (2) flowables and (3) soluble liquids. Complete filling of the spray tank with water.

**Use of Surfactants:** For all applications of Goal 2XL where postemergence weed control is desired (**except garlic and onions**), add a minimum of 2 pints of 80% active nonionic surfactant (cleared for application to growing crops) per each 100 gallons of spray. The addition of 4 pints of nonionic surfactant is recommended to enhance postemergence activity when hard water (greater than 600 ppm) is used. *Maintain agitation until spraying is completed.*

#### Tank Mixing Precautions:

- Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- Do not exceed recommended application rates. Do not tank mix this product with another pesticide that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.

**Tank Mix Compatibility Testing:** A jar test is recommended prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in

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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, jets, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

**Sprayer Clean-up:** Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residues of Goal 2XL remaining in spray equipment may damage other crops. The addition of a non-ionic surfactant to equipment flushing waters at the rate of 1 quart per 100 gallons is recommended to aid in removal of residues of Goal 2XL.

**Crop-Specific Use Directions**

**ARTICHOKE (GLOBE)**

**Post-Directed Spray Application**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	<p><b>Application Method:</b> Apply as a directed spray to the soil surface between the rows and at the base of artichoke plants in a minimum spray volume of 40 gallons per acre.</p> <p><b>Timing to Crop:</b> Apply after completion of ditching operations. Separate applications of up to 4 pt/acre may be made 8 to 10 weeks apart or a single application of up to 6 pt/acre may be made.</p> <p><b>Timing to Weeds:</b> Preemergence up to 8 leaf stage.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>Do not apply over-the-top. Contact with direct spray or drift will cause injury to artichoke fronds or severe injury to buds or flowers.</li> <li>Application of Goal 2XL to artichoke plantings should be delayed a minimum of 60 days after cutting back or transplanting.</li> </ul>		
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply more than 6 pints of Goal 2XL per acre per season as a result of a single application or multiple applications.</li> <li><b>Preharvest Interval:</b> Do not apply within 5 days of harvest.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
cheeseweed (malva)	cheeseweed (malva)
groundsel, common	groundsel, common
lambsquarters, common	mustard, common yellow
mustard, common yellow	nettle, burning
oxalis (bermuda buttercup) †	oxalis (bermuda buttercup)
shepherdspurse	shepherdspurse
sowthistle, annual	sowthistle, annual

† Suppression

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**BROCCOLI / CABBAGE / CAULIFLOWER**

**Pre-Transplant (Preplant) Application for Preemergence Broadleaf Weed Control**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 - 2	<p><b>Pre-Transplant Application Only:</b> Apply broadcast to final seedbed prior to transplanting. Use lower rate in the rate range on coarse textured soils with less than 1% organic matter. Use the highest rate in the rate range on medium to fine textured soils or soils containing greater than 1% organic matter.</p> <p>Transplanting should be accomplished with minimal soil disturbance and soil left undisturbed during the time weed control is desired.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Pre-transplant applications may result in initial, but temporary, crop injury (leaf cupping or crinkling) and is enhanced if crop leaves come in direct contact with treated soil. Crop will rapidly outgrow this condition and develop normally. Severe crop injury may result if transplants are under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides or storage conditions. The use of transplants less than 5 weeks old or use of extremely succulent transplants grown in containers less than 1 inch square, may increase the severity of crop injury. Hardening off, increasing the age of transplants or increasing the size of the rooting containers will lessen the possibility and/or severity of potential crop injury.</li> <li>• Goal 2XL will assist in early season annual grass control, however, a herbicide program for preemergence or postemergence control of annual grasses is recommended. <b>Note:</b> Do not apply Goal 2XL if an acetanilide herbicide such as Dual Magnum herbicide, Lasso herbicide, or Ramrod herbicide has been applied to the field during the current growing season as severe crop injury may occur.</li> <li>• Do not apply Goal 2XL as a preemergence treatment to direct-seeded broccoli, cabbage or cauliflower.</li> <li>• Do not apply Goal 2XL post-transplant or over-the-top of broccoli, cabbage or cauliflower.</li> <li>• Applications to muck soils may result in partial weed control or suppression.</li> <li>• Furrow and drip irrigation immediately after transplanting and under high temperatures can result in increased crop injury. Sprinkler irrigation is recommended during early establishment of transplants. If these conditions cannot be met, Goal 2XL herbicide should not be used.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply more than 2 pints of Goal 2XL per treated acre per season.</li> </ul>		

**Key Weeds Controlled:**

<b>Preemergence</b>
carpetweed pigweed, redroot purslane, common smartweed, Pennsylvania

**CACAO (BEARING AND NONBEARING)**

**(For Use Only in Hawaii)**

Goal 2XL may be applied as a pre-transplant treatment or to established or recently transplanted cacao.

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Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 - 8	<b>Pre-transplant Application:</b> Up to 4 pints per broadcast acre may be applied as a pre-transplant application. <b>Application to Established Plantings:</b> In established plantings, including recently transplanted cacao plants, apply as a directed spray to the orchard floor. Use higher rates in rate range and increase spray volume to control dense growth of existing weeds or for extended residual preemergence weed control.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Do not apply preplant or preemergence to direct-seeded cacao.</li> <li>Goal 2XL should be applied to only healthy growing trees/transplants of suitable size to allow directed sprays. Avoid spray contact with foliage.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 8 pints of Goal 2XL per acre as a single application or more than 24 pints per acre per year.</li> <li><b>Preharvest Interval:</b> Do not apply Goal 2XL within 1 day of harvest.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum	purslane, common
buttonweed	spurge, garden
crotalaria	
purslane, common	
spurge, garden	

**CITRUS (NONBEARING)**

Citrus, such as Calamondin, Chironja, Citrus Citron, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Pummeio, Satsuma Mandarin, Sour Orange, Sweet Orange, Tangelo, Tangerine, Tangor

Goal 2XL may be applied only in non-bearing citrus orchards. Apply only as a directed spray to the orchard floor avoiding contact with citrus foliage.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	6	<b>Preemergence Weed Control:</b> Up to 6 pt/acre may be applied for residual preemergence weed control. <b>Postemergence Weed Control:</b> The 6 pint/acre rate will control weeds up to 4 inches tall. Weeds greater than 4-leaf or 4 inches tall may be partially controlled. Use sufficient spray volume for complete and uniform coverage of weeds. Increase the spray volume with increased weed height and density to ensure complete coverage.
Postemergence	2 - 6	
<b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions.		
<ul style="list-style-type: none"> <li><b>Preemergence Use:</b> For residual control of grass weeds, Goal 2XL may be tank mixed with grass herbicides labeled for use in citrus.</li> <li><b>Postemergence Use:</b> For broader spectrum postemergence control of emerged grass and broadleaf weeds, Goal 2XL may be tank mixed with paraquat (Gramoxone herbicide) or glyphosate.</li> </ul>		

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<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>Do not apply during periods of new citrus foliage growth. Applications should be made after foliage has fully expanded and hardened off. Avoid direct spray contact with citrus foliage.</li> </ul>
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>Apply Goal 2XL only to nonbearing citrus (trees that will not bear fruit for one year).</li> <li>Do not apply more than 6 pints of Goal 2XL per acre per year as a result of a single or multiple applications.</li> </ul>

**Key Weeds Controlled:**

(Arizona and California)		(Florida, Louisiana and Texas)	
Preemergence	Postemergence	Preemergence	Postemergence
burclover cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem filaree, whitestem groundsel, common henbit knotweed, prostrate lambsquarters, common lettuce, prickly pigweed, redroot purslane, common redmaids rocket, London shepherdspurse sowthistle, annual spurge, prostrate spurge, spotted	cheeseweed (malva) fiddleneck, coast filaree, broadleaf † filaree, redstem † filaree, whitestem † groundsel, common henbit minerslettuce nettle, burning pigweed, redroot redmaids shepherdspurse sowthistle, annual	cudweed, narrowleaf eveningprimrose, cutleaf †† groundcherry, cutleaf lambsquarters, common nightshade, American black nightshade, black pepperweed, Virginia pigweed, redroot poinsettia, wild pusley, florida sida, prickly (teaweed) smartweed, pennsylvania sowthistle, annual spurge, prostrate spurge, spotted	balsamapple cudweed, narrowleaf ††† eveningprimrose, cutleaf †† groundcherry, cutleaf groundcherry, Wright lambsquarters, common morningglory, annual nightshade, American black nightshade, black pepperweed, Virginia pigweed, redroot poinsettia, wild purslane, common pusley, florida sida, prickly (teaweed) smartweed, pennsylvania sowthistle, annual

† Goal 2XL at the 6 pt/acre will provide control of filaree and other weeds up to 4-inch stage. Applications to weeds beyond the 4-inch stage may result in partial control.

†† Highest rate and/or multiple applications may be required for acceptable control.

††† Maximum 0.5-inch diameter.

**CLARY SAGE**

*Clary Sage (Salvia sclarea) Grown and Utilized in the Essence Industry*  
 (For Use Only in North Carolina)

Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	0.5 - 1	Goal 2XL may be applied to established clary sage for control of henbit ( <i>Lamium amplexicaule</i> ) and other winter annual broadleaf weeds during the winter and spring season. Apply shortly after the first flush of henbit is in the 2- to 4-leaf stage of growth. Additional applications may be required to control subsequent weed flushes through the spring season. After treatment, henbit will stop growing and slowly die. Increase the spray volume if weed growth is dense.
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>Clary sage may respond to the topical application of this product with some marginal leaf burn, but recovery is rapid.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply more than 6 pints per acre per year.</li> </ul>		

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**COFFEE (BEARING AND NONBEARING)**

(For Use Only in Hawaii)

Goal 2XL may be applied to established coffee, recently transplanted coffee, or as a pre-transplant treatment. In established non-dormant coffee, apply as a directed spray avoiding contact with crop foliage. Newly established transplants should be healthy and well established and of sufficient size to allow use of directed sprays without contacting crop foliage.

Goal 2XL may be applied over-the-top of dormant coffee transplants. Transplants are considered to be dormant when active terminal growth has ceased and terminal buds have formed. Application over-the-top of coffee plants after buds start to swell (a sign that new growth has resumed) may result in crop injury and is not recommended.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	2 - 8	<p><b>Preemergence Weed Control:</b></p> <ul style="list-style-type: none"> <li>Apply as a directed spray to the orchard floor beneath established coffee plants.</li> <li>Up to 4 pints per acre may be applied as a pre-transplant application prior to transplanting coffee plants.</li> </ul> <p><b>Postemergence Weed Control:</b> Increase the spray volume when weed growth is dense or trash is present; or use a higher rate within the rate range for extended residual preemergence weed control.</p>
<p><b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions. Apply tank mixes only as a directed sprays.</p>		
<p><b>Precaution:</b></p> <ul style="list-style-type: none"> <li>To prevent foliar injury, do not apply during periods of rapid new growth or allow spray or drift to contact actively growing foliage.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply preplant or preemergence to direct-seeded coffee.</li> <li>Do not apply more than 8 pints per broadcast acre of Goal 2XL in a single application or 24 pints per broadcast acre per year.</li> <li><b>Preharvest Interval:</b> Do not apply Goal 2XL within one (1) day of harvest.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum	purslane, common
buttonweed	spurge, garden
crotalaria	
purslane, common	
spurge, garden	

**CONIFER SEEDBEDS, TRANSPLANTS, CONTAINER STOCK AND SELECTED FIELD GROWN DECIDUOUS TREES**

**General Use Precautions and Restrictions:**

- Not for conifer release in forest management programs or for forest regeneration applications.
- Do not apply Goal 2XL in an enclosed greenhouse structure as injury to plant foliage may result.
- Do not store or transport treated container stock in an enclosed structure until completion of 4 irrigations (minimum 21 days) as injury to non-labeled plants may occur.



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- Apply Goal 2XL only to healthy conifer stock. Do not apply Goal 2XL to conifers that are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury, as severe injury may result.
- Do not graze or harvest livestock forage from treated areas.

**Key Weeds Controlled:** When Goal 2XL is applied preemergence or postemergence at recommended dosages and weed stages.

barnyardgrass †	mustard, blue
bedstraw, catchweed	mustard, tumble
bittercress, lesser	mustard, wild
bluegrass, annual †	nettle, burning
buckwheat, wild	nightshade, black
burclover	nightshade, hairy
carpetweed	oats, wild
clover, red †	orach, red
clover, white †	pepperweed, yellowflower
cocklebur, common	pigweed, prostrate
crabgrass, large †	pigweed, redroot
fiddleneck, coast †	pimpernel, scarlet
filaree, broadleaf	purslane, common
filaree, redstem	redmaids
fireweed (from seed)	rocket, London
flixweed	sandspurry, red
foxtail, giant †	shepherdspurse †
goosegrass †	sida, prickly
groundcherry, cutleaf	smartweed, Pennsylvania
groundcherry, wright	sorrel, red (from seed)
groundsel, common	sowthistle, annual
henbit	speedwell, birdseye
jimsonweed	spurge, prostrate ††
knotweed, prostrate	spurge, spotted ††
ladysthumb	spurry, corn
lambsquarters, common	tansymustard
lettuce, prickly	thistle, bull ††
mallow, little	thistle, Russian
mayweed	velvetleaf
minerslettuce	witchgrass
morningglory, ivyleaf †	woodsorrel, yellow ††
morningglory, tall †	

† Highest rate and/or multiple applications may be required for acceptable control.

†† Preemergence control only.

## CONIFER SEEDBEDS

**Agricultural Use Requirements:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 3 days.

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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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Goal 2XL provides both postemergence and residual preemergence control of many broadleaf weeds and annual grass species.

Seeded conifers are tolerant to preemergence and postemergence applications of Goal 2XL. For weed control during the establishment of conifer seedlings, Goal 2XL can be applied after seeding of conifers, but prior to emergence. For weed control in emerged conifers, Goal 2XL may be applied over-the-top, but application should be delayed a minimum of 5 weeks after seedling emergence. If application is made during cool, cloudy weather, make certain that seedlings have hardened-off prior to spraying.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1 - 4	<b>Application after planting, but prior to emergence of conifer seedlings:</b> Where grass weeds are present, apply 2 to 4 pints of Goal 2XL per acre. In known areas of high weed competition, apply 4 pints of Goal 2XL per acre. Broadcast to beds and irrigate with ½ to ¾ inch of sprinkler irrigation before weed emergence. Goal 2XL is most effective on annual grasses when applied preemergence.
Postemergence	1 - 2	<b>Application after emergence of conifer seedlings:</b> Application should be made to seedling weeds less than 4 inches in height (seedling grasses not exceeding the 2-leaf stage). Depending of subsequent weed flushes, multiple applications may be necessary to achieve season-long weed control.
<b>Chemigation:</b> Goal 2XL may be applied at labeled rates through sprinkler irrigation systems. For center pivot irrigation systems, apply the specified dosage of Goal 2XL per acre metered at a continuous uniform rate during the entire irrigation period, otherwise meter Goal 2XL at a continuous uniform rate during the middle 1/3 of the irrigation period. When applying by sprinkler irrigation, follow directions given in the Chemigation Instructions section of this label.		
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Occasionally spotting, crinkling, or flecking may appear on leaves of conifers. Leaves that receive direct spray or drift may be injured, but typically outgrow this condition rapidly and develop normally.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 8 pints of Goal 2XL per acre per year.</li> </ul>		

**Goal 2XL may be applied to conifer seedbeds of the following species:**

**Important:** When applied as directed, the conifer species listed on this label have shown tolerance to Goal 2XL. It is impossible, however, to evaluate this product on all varieties, biotypes and cultivars of listed species under all possible growing conditions. Until familiar with results under local growing conditions, the user should exercise reasonable judgment and caution with this product. Limit application of this product to a few plants in a small area to determine plant tolerance and extent of injury if such occurs, prior to initiating large-scale applications.

<b>Douglas fir</b>	<i>Pseudotsuga menziesii</i>
<b>Fir</b>	Fraser ( <i>Abies fraseri</i> ) Grand ( <i>Abies grandis</i> ) Noble ( <i>Abies procera</i> )
<b>Hemlock</b>	Eastern hemlock ( <i>Tsuga canadensis</i> )
<b>Pine</b>	Austrian ( <i>Pinus nigra</i> ) Eastern White ( <i>Pinus strobus</i> ) Himalayan ( <i>Pinus wallichiana</i> ) Jack ( <i>Pinus banksiana</i> ) Loblolly ( <i>Pinus taeda</i> ) Lodgepole ( <i>Pinus contorta</i> ) Longleaf ( <i>Pinus palustris</i> ) Monterey ( <i>Pinus radiata</i> )

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	Mugho ( <i>Pinus mugo</i> ) Ponderosa ( <i>Pinus ponderosa</i> ) Scotch ( <i>Pinus sylvestris</i> ) Shortleaf ( <i>Pinus echinata</i> ) Slash ( <i>Pinus elliotii</i> ) Virginia ( <i>Pinus virginiana</i> )
<b>Spruce</b>	Blue ( <i>Picea pungens</i> ) Dwarf ( <i>Picea glauca Conica</i> ) Alberta ( <i>Picea abies</i> ) Norway ( <i>Picea sitchensis</i> )

**CONIFER TRANSPLANTS AND CONTAINER STOCK  
(INCLUDES 2-0 SEEDLING AND CHRISTMAS TREE PLANTINGS)**

**Agricultural Use Requirements:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 6 days.

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 footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- shoes plus socks

Many container-grown conifers and conifer transplants are tolerant to preemergence and postemergence applications of Goal 2XL. Applied postemergence, Goal 2XL provides postemergence control of emerged weeds and preemergence residual control of many broadleaf weeds and grasses (see Key Weeds Controlled) at the beginning of this section.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 8	<b>Transplanted and Container Grown Conifers:</b> For best results, preemergence applications should be made immediately after transplanting seedlings or to weed-free container stock. Postemergence applications should be made to weeds less than 4 inches in height. Two applications may be necessary, in fall-transplanted conifer fields, for season-long weed control. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, enhances the activity of Goal 2XL on emerged weeds.

**Precautions:**

- Do not make over-the-top applications during periods of active conifer growth. Apply only before bud break or after new terminal growth has hardened off.

**Crop-Specific Restrictions:**

- Do not apply more than 8 pints of Goal 2XL per acre in a single application or more than 16 pints per acre per year.

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In addition to those conifer species listed under the Conifer Seedbed section, the following conifer species have been shown to be tolerant to Goal 2XL:

Arborvitae	<i>Thuja occidentalis</i> <i>Thuja orientalis</i>
Juniper	<i>Juniperus chinensis</i> <i>Juniperus horizontalis</i> <i>Juniperus procumbens</i> <i>Juniperus sabina</i> <i>Juniperus scopulorum</i>
Red cedar	<i>Juniperus virginiana</i>
Western Hemlock	<i>Tsuga heterophylla</i>
Yew	<i>Taxus species</i>

### SELECTED FIELD-GROWN DECIDUOUS TREES

Listed field-grown deciduous trees are tolerant only to directed spray applications of Goal 2XL. Goal 2XL provides both preemergence and postemergence control of listed broadleaf weeds and grasses.

**Timing to Crop:** Apply Goal 2XL to established deciduous trees or after transplanting. For optimum weed control, applications should be made prior to weed germination. Apply only as a directed spray to soil beneath the trees.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Early postemergence	2 - 6	Goal 2XL may be applied to established deciduous trees or after transplanting as a single or split application. Apply as a directed spray to the soil surface. Use of spray shields to reduce exposure of foliage and bark is recommended. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, will enhance herbicidal activity on emerged weeds.  <b>Spot Application:</b> Spot treatments at recommended rates may be used to control localized weed infestations. See use directions for Spot Application in the Application Methods and Recommended Cultural Practices section.
<b>Tank Mixing:</b> For broader spectrum control, Goal 2XL may be tank mixed with other preemergence or postemergence herbicides registered for this use in deciduous trees. Refer to Mixing Directions section for Tank Mixing Precautions.		
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>For maximum crop safety, directed applications should be prior to budbreak in the spring or after trees have initiated dormancy in the fall. Avoid contact of spray or drift with foliage or stems with green bark. Application after bud swell may result in crop injury and is not recommended. If a non-dormant application is required due to weed competition, apply only after foliage has fully expanded and hardened off. Use only directed sprays and spray shields to prevent spray contact with stems with green bark or foliage.</li> <li>Do not apply Goal 2XL to trees that have been weakened or are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, or winter injury as severe injury may result.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 6 pints of Goal 2XL per acre per year.</li> <li>Do not apply to bearing treefruit, nut and vine crops. For selected bearing treefruit, nut and vine crops, refer to Treefruit/Nut/Vine section of this label for use directions.</li> <li>Do not graze or feed livestock forage cut from areas treated with Goal 2XL.</li> </ul>		

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Goal 2XL may be applied to the following deciduous tree species:

Almond <sup>††</sup>	<i>Prunus spp.</i>
Apple <sup>††</sup>	<i>Malus X domestica</i>
Apricot <sup>††</sup>	<i>Prunus spp.</i>
Ash, Green	<i>Fraxinus pennsylvanica</i>
Ash, White	<i>Fraxinus americana</i>
Birch, River	<i>Betula nigra</i>
Cherry <sup>††</sup>	<i>Prunus spp.</i>
Chestnut <sup>††</sup>	<i>Castanea spp.</i>
Crabapple <sup>††</sup>	<i>Malus spp.</i>
Cottonwood	<i>Populus spp.</i>
Dogwood	<i>Cornus florida</i>
Eucalyptus	<i>Eucalyptus viminalis</i> <i>Eucalyptus pulverulenta</i> <i>Eucalyptus camaldulensis</i>
Filbert <sup>††</sup>	<i>Corylus spp.</i>
Lilac	<i>Syringa vulgaris</i>
Locust, Black	<i>Robinia pseudoacacia</i>
Maple, Black <sup>†</sup>	<i>Acer nigrum</i>
Maple, Red <sup>†</sup>	<i>Acer rubrum</i>
Maple, Sugar <sup>†</sup>	<i>Acer saccharum</i>
Myrtle, Crepe	<i>Lagerstroemia indica</i>
Nectarine <sup>††</sup>	<i>Prunus spp.</i>
Nut, Hickory <sup>††</sup>	<i>Carya spp.</i>
Nut, Macadamia	<i>Macadamia ternifolia</i>
Oak, Chestnut	<i>Quercus prinus.</i>
Oak, Cherrybark	<i>Quercus pagoda</i>
Oak, Nutt All	<i>Quercus nuttallii</i>
Oak, Pin	<i>Quercus palustris</i>
Oak, Red	<i>Quercus. rubra</i>
Oak, Water	<i>Quercus nigra</i>
Oak, Willow	<i>Quercus phellos</i>
Olive, Russian	<i>Elaeagnus angustifolia</i>
Poplar	<i>Populus spp.</i>
Poplar, Tulip	<i>Liriodendron tulipifera</i>
Peach <sup>††</sup>	<i>Prunus persica</i>
Pear <sup>††</sup>	<i>Pyrus spp.</i>
Pecan <sup>††</sup>	<i>Carya spp.</i>
Pistachio <sup>††</sup>	<i>Pistacia vera</i>
Plum <sup>††</sup>	<i>Prunus spp.</i>
Prune <sup>††</sup>	<i>Prunus spp.</i>
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Walnut, Black <sup>††</sup>	<i>Juglans nigra</i>

<sup>†</sup> Do not apply to maple trees used for production of maple sap or maple syrup.

<sup>††</sup> Apply only to nonbearing trees. For bearing treefruit, nut and vine crops, refer to specific use directions in the Treefruit/Nut/Vine section of this label.

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**CORN****FOR USE ONLY ON FIELD CORN IN CONJUNCTION WITH THE USDA WITCHWEED ERADICATION PROGRAM IN NORTH CAROLINA AND SOUTH CAROLINA**

Apply Goal 2XL only as a directed spray from May through August for preemergence and postemergence control of witchweed (*Striga asiatica*). Corn must be a minimum of 24 inches tall. Examine witchweed infested fields during the early part of the growing season to determine uniformity of corn stand and grass weed pressure. If necessary, cultivate weed-infested fields prior to initial application of Goal 2XL to allow for optimum soil coverage during the initial application. Fields treated with Goal 2XL should be inspected regularly for any breakthrough of witchweed. If breakthrough occurs, a second application should be made as soon as possible after appearance of witchweed. Repeat treatments should occur prior to bloom stage to prevent seed set.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2 - 3	<b>Initial Application:</b> Apply as a directed spray over the entire row surface at the rate of 2 pints per acre. Use up to 3 pints per acre in areas of heavy witchweed infestation. Use a minimum spray volume of 20 gallons per acre and a non-ionic surfactant at the rate of 2 pints per 100 gallons of spray.
Postemergence	1 - 2	<b>Repeat Applications:</b> In case of witchweed breakthrough a repeat application may be made at 1 to 2 pints per acre.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Do not spray over the top of the corn, as this may result in severe corn injury. Spray should contact only the lower 3 to 8 inches of the corn stalk and any leaves in this zone. Spray droplets contacting the lower leaves will cause necrotic spotting or streaking of sprayed tissue</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 5 pints (1.25 lb active) of Goal 2XL per acre during the growing season.</li> <li>Do not apply any apply within 60 days of harvest.</li> <li>Do not use corn plants from a treated field for green chop, ensilage, forage, or fodder.</li> </ul>		

**COTTON**

**Application Methods and Equipment:** Goal 2XL may be applied as a post-direct spray to cotton a minimum of 6 to 8 inches tall. Care must be exercised to avoid spray contact with the cotton leaves. Use rigid precision ground spray equipment and spray shields to prevent spray contact with cotton foliage. Use branch lifters or shields, as necessary, to avoid contact of directed sprays with cotton plant.

Accurate, placement of spray nozzles is essential for uniform coverage of weeds and to minimize injury to cotton plants. Use a minimum broadcast spray volume of 20 gallons per acre and operate the sprayer at the minimum spray pressure recommended by the spray nozzle manufacturer. Goal 2XL may be applied as a post-direct spray with only 2 flat fan nozzles per row (1 nozzle on each side of the row). For optimum coverage, use 4 flat fan nozzles per row (2 nozzles on each side of the row). The 2 forward nozzles should point forward and downward while the rear nozzles should point to the rear and downward. With either sprayer setup, nozzles should be carefully adjusted to cover the weed foliage with minimum contact to cotton plants. Goal 2XL may also be applied as a band application. **Do not use hollow cone nozzles.**

**Tank Mixing:** For control of additional broadleaf and grass weeds, Goal 2XL may be applied as a postemergence directed spray in tank mix combination with other herbicides registered for postemergence use in cotton (see Tank Mixing Precautions under Mixing Directions).

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Weed Control	Rate (pt/acre)	Specific Use Directions
Postemergence	1 - 2	Apply as a post-directed spray. For optimum control, use the 2 pint per acre rate on actively growing weed seedlings with no more than 4 true leaves (not counting cotyledon leaves). Effective control of succulent weeds at the 2- to 3-leaf stage can usually be obtained at the 1 pint per acre rate. See Mixing Directions for surfactant recommendations. Where available, irrigation may be applied prior to application of Goal 2XL to encourage maximum weed emergence. Irrigation following application will improve preemergence activity of Goal 2XL against nightshade and groundcherry species.

**Precautions:**

- Do not apply to cotton less than 6 inches tall or severe crop injury will result.
- Exercise care to avoid spray contact with cotton leaves. Leaves accidentally sprayed will exhibit necrotic (dead) spots and may be dropped from the plant. Crop injury may be enhanced if application is made when excessive soil moisture is present or rainfall occurs immediately after application, however, cotton will outgrow this condition and develop normally.

**Crop-Specific Restrictions:**

- **Western Cotton (AZ and CA):** Do not apply more than 2 pints (0.5 lb active) of Goal 2XL per acre in a single application, or more than a total of 4 pints (1.0 lb active) of Goal 2XL per broadcast acre per season as a result of multiple applications. Do not apply within 75 days of harvest.
- **Southern Cotton (All other states):** Do not apply more than 2 pints (0.5 lb active) of Goal 2XL per acre of per season as a result of a single application or multiple applications. Do not apply within 90 days of harvest.

**Key Weeds Controlled:**

Postemergence	
cocklebur, common	nightshade, hairy
croton, tropic	pigweed, redroot
groundcherry, cutleaf	poinsettia, wild †
groundcherry, Wright	purslane, common
jimsonweed	sesbania, hemp
lambsquarters, common	sicklepod ††
morningglory, annual (up to 6 leaf)	sida, prickly (teaweed) †
nightshade, American black	smartweed, pennsylvania
nightshade, black	velvetleaf

† Multiple applications may be required for acceptable control.

†† Post-direct applications of Goal 2XL will control or suppress seedlings not exceeding the one true leaf stage.

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**COTTONWOOD**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	Goal 2XL may be applied as a single or split application. Apply as a directed spray to soil at the base of cottonwood trees. Use the higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 6 leaf stage. The addition of a non-ionic surfactant at 2 pints per 100 gallons of spray will enhance the postemergence activity of Goal 2XL on emerged weeds.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Apply Goal 2XL immediately after transplant only to dormant healthy cottonwood stock.</li> <li>In established stands, do not allow sprays of Goal 2XL to contact cottonwood foliage. In newly established cottonwood plantings, use spray shields, if necessary, to prevent exposure of green bark and foliage.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 6 pints per acre of Goal 2XL in a single application or more than 18 pints per acre per year.</li> </ul>		

**Key Weeds Controlled:**

groundsel, common	mustard, hedge
knotweed, prostrate	shepherdspurse
lambsquarters, common	smartweed, Pennsylvania

**EUCALYPTUS**

Apply Goal 2XL for preemergence and postemergence control of listed broadleaf weeds in established eucalyptus plantings.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	<b>Directed Spray:</b> Goal 2XL may be applied as a single or split application. Apply as a directed spray to soil at the base of eucalyptus trees. Use the higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 6 leaf stage. The addition of a non-ionic surfactant at the rate of 2 pints per 100 gallons of spray will enhance the postemergence activity of Goal 2XL on emerged weeds. <b>Over-the-Top Application:</b> In new plantings, apply Goal 2XL just before or immediately after transplanting eucalyptus seedlings that are in a dormant condition (i.e., leaves may be present, but terminal growth has hardened off and terminal buds have formed). In established plantings, Goal 2XL may be applied as an over-the-top spray when plants are in a dormant condition.



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**Precautions:**

- At transplant, apply Goal 2XL only to healthy "dormant" healthy eucalyptus stock. In established plantings, use spray shields, if needed, to prevent exposure of foliage and bark of small and/or actively growing plants.
- To avoid phytotoxicity, make over-the-top applications only to eucalyptus trees in a dormant condition. Do not make over-the-top applications after bud break and resumption of active growth.

**Crop-Specific Restrictions:**

- Do not apply more than 6 pints of Goal 2XL per acre in a single application or more than 18 pints per acre per year.

**Key Weeds Controlled:**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed (malva)	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf †
filaree, broadleaf	filaree, redstem †
filaree, redstem	filaree, whitestem †
filaree, whitestem	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	nettle, burning
lambquarters, common	pigweed, redroot
lettuce, prickly	redmaids
pigweed, redroot	shepherdspurse
purslane, common	sowthistle, annual
redmaids	
rocket, London	
shepherdspurse	
sowthistle, annual	
spurge, prostrate	
spurge, spotted	

† At the 6-pint rate, Goal 2XL will provide control of filaree up to the 6-leaf stage.

**USE ON FALLOW BEDS**

(Not for use prior to planting soybeans in California)

Used alone or in tank mix combination with glyphosate, Goal 2XL provides preemergence and/or postemergence control of winter annual broadleaf weeds on land to be planted to crops.

Prior to planting, treated fallow beds should be thoroughly tilled (incorporated) to a depth of at least 2.5 inches. Goal 2XL is no longer herbicidally effective once the active layer in the soil surface is disrupted by soil incorporation.

**Aerial Application:** Goal 2XL may be aerially applied for weed control in fallow beds. Follow requirements for Aerial Application in the General Information section of this label.

**Minimum Treatment to Planting Intervals for listed crops:**

Direct Seeded Crops	Minimum Treatment-to-Planting Interval	
	Goal 2XL (up to 1 pint/acre)	Goal 2XL (>1 to 2 pints/acre)
carrot	90 days	90 days
cotton	7 days	7 days

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potato	60 days	60 days
sugar beet	60 days	90 days
other root/tuber crops	90 days	90 days
onions	180 days	180 days
other bulb vegetables	180 days	180 days
cabbage	90 days	90 days
cauliflower	90 days	90 days
other brassica crops	120 day	120 days
lettuce	90 days	120 days
other leafy vegetables (except brassica crops)	120 days	120 days
pepper	90 days	120 days
tomato	60 days	120 days
other fruiting vegetables	120 days	120 days
cantaloupe	60 days	90 days
squash	90 days	120 days
watermelon	60 days	60 days
other cucurbits	90 days	120 days
dry beans	60 days	60 days
peanut	60 days	60 days
other legume vegetables	60 days	60 days
safflower	60 days	60 days
Soybeans (Except California)	7 days	7 days
cereal grains: including barley, buckwheat, corn, proso millet, pearl millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, and wild rice	10 months	10 months
cotton and soybean	(see specific labeling for fallow beds to be planted to cotton or soybeans)	

Transplanted Crops	Minimum Treatment-to-Planting Interval	
	Goal 2XL (up to 1 pint/acre)	Goal 2XL (>1 to 2 pints/acre)
celery	30 days	30 days
conifer	0 days	0 days
garlic	0 days	30 days
grape/kiwi	0 days	0 days
onion	0 days	30 days
pepper	30 days	30 days
strawberries	30 days	30 days
tomato	30 days	30 days
treefruit/nut/citrus	0 days	0 days

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	1 - 2	Use 20 or more gallons of spray volume per acre and increase spray volume for dense weed growth. Use the 1 pint per acre rate for up to 4 weeks of preemergence control and postemergence control of susceptible weeds up to 4-leaf stage. Use the 2 pint per acre rate for up to 8 weeks of preemergence control and postemergence control of

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		<p>susceptible weeds up to 6-leaf stage. Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks after application.</p> <p>A tank mix with glyphosate is recommended if the treatment area contains dense weed populations, oversized weed seedlings, volunteer grains, annual grasses or under unfavorable environmental conditions.</p> <p><b>Outside of California:</b> For enhanced contact activity (burndown/suppression) tank mix 6.5 fl oz of Goal 2XL with the labeled rate of either glyphosate or paraquat (Gramoxone). Apply at the application rate and weed growth stages recommended in the respective tank mix product label.</p>
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**Precautions:**

- Failure to achieve thorough and complete incorporation, or to follow the recommended treatment-planting interval, may result in stand reduction and/or vigor reduction of the planted crop.
- Crop injury may be enhanced if newly seeded crops or transplants are under stress due to drought, flooding, excessive fertilizer or soil salts, low soil temperatures, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.
- Exercise extreme care to avoid herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result.

**Crop-Specific Restrictions:**

- Do not apply more than 2 pints of Goal 2XL per acre per fallow season.

**Key Weeds Controlled:** Goal 2XL provides preemergence and postemergence control of the following weeds on fallow beds: †

buttercup, smallflower	mustard species
cheeseweed (malva)	nettle, burning
eveningprimrose, cutleaf ††	oxalis
fiddleneck, coast	pigweed, redroot
filaree, broadleaf	purslane, common
filaree, redstem	redmaids
geranium, Carolina	rocket, London
groundcherry, cutleaf	shepherdspurse
groundsel, common	sida, prickly
henbit	sowthistle, annual
ladysthumb	velvetleaf (wild cotton)
minerslettuce	

† Thorough spray coverage is essential to maximize the postemergence activity of Goal 2XL. For postemergence control when applied by air, a tank mixture of Goal 2XL with either glyphosate or paraquat (Gramoxone) is recommended.

†† Requires maximum rate and/or multiple applications for effective control.

**FALLOW LAND**

(For Use Only In Idaho, Oregon and Washington)

Used alone or in a tank mix combination with glyphosate, Goal 2XL provides preemergence and/or postemergence control of listed annual broadleaf weeds in a fallow land system. Goal 2XL may be used to reduce weed growth prior to the establishment of a dry soil mulch. Use is restricted to summer fallow on land that will be planted the following year to winter wheat, barley or oats.

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Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	0.5 - 2	<b>Goal 2XL Alone:</b> Preemergence weed control occurs as seedling weeds come in contact with the soil-applied herbicide during emergence. Postemergence weed control is most effective when Goal 2XL is applied to seedling weeds less than 4 inches in height. Apply Goal 2XL in 15 or more gallons of water per acre and increase spray volume if weed growth is dense. Use of an 80% active nonionic surfactant cleared for use on growing crops is recommended for optimum postemergence weed control.
<b>Tank Mixing:</b> For postemergence control of annual grass weeds, 0.5 - 2 pt/acre of Goal 2XL may be tank mixed with labeled rates of glyphosate. Follow label instructions for Fallow and Reduced Tillage Systems for the glyphosate product. Refer to Mixing Directions section for Tank Mixing Precautions.		
<b>Use Restrictions for Fallow Land:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 2 pints per acre per application or more than 2 pints per use season.</li> </ul>		

**Key Weeds Controlled:** Goal 2XL provides preemergence and postemergence control of the following weeds on fallow land:

fiddleneck, coast henbit lettuce, prickly (china lettuce) mustard, blue (purple mustard) mustard, tumble (Jim hill mustard)	pigweed, redroot purslane, common shepherdspurse sowthistle, annual
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**GARBANZO BEANS**

(For Use Only in Arizona and California)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1	Apply after planting but prior to weed or crop emergence as a single broadcast application using a spray volume of 20 or more gallons of water per acre.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>Garbanzo beans are tolerant to preemergence application of Goal 2XL, however, under certain conditions, severe but temporary crop injury may occur. A heavy splashing rain shortly after crop emergence or wet soil conditions during early growth stages can cause leaf cupping, crinkling, stunting or defoliation of the garbanzo seedlings. Injury, when it occurs, it is usually limited to the first few leaves that develop after plants emerge from the soil. Delays in crop development and/or maturity may result, but Garbanzo beans do recover with little to no impact on yield.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>Do not apply more than 1 pint per acre of Goal 2XL in a single application.</li> <li>Do not use bean vines for livestock feed or hay.</li> </ul>		

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**Key Weeds Controlled:**

<b>Preemergence</b>
groundsel, common mallow, little rocket, London shepherdspurse

**GARLIC**

**Agricultural Use Requirements:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

**Cultural Considerations:** For optimum preemergence weed control, the soil surface should be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, treated beds should be left undisturbed during the time period for which weed control is desired. Cultural practices that result in soil disturbance or redistribution or untreated soil can result in reduced weed control.

**Direct Seeded Garlic (Postemergence Application):**

Weed Control	Rate (per acre)	Specific Use Directions
Postemergence	2 - 4 fl oz	<b>Northeastern States Including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Apply Goal 2XL at 2 to 4 fl oz per acre to seeded garlic that has at least 3 true leaves using ground equipment. Multiple treatments at 2 to 4 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.
Postemergence	0.5 - 1 pt	<b>Western States Including Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington:</b> Apply Goal 2XL at 0.5 to 1 pt per acre to seeded garlic that has at least 2 true leaves using ground equipment. Multiple treatments at 0.5 to 1 pt per acre may be applied up to a maximum of 2.0 pints per acre pre use season. For optimum postemergence weed control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.
Postemergence	0.5 pt	<b>All Other States:</b> Apply Goal 2XL at 0.5 pt per acre to seeded garlic that has at least 2 true leaves using ground equipment. Multiple treatments at 0.5 pt per acre may be applied up to a maximum of 2 pints per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later

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than 4-leaf growth stage may result in reduced weed control.

**Direct Seeded Garlic (California Only)**

Weed Control	Rate (per/acre)	Specific Use Directions
Preemergence Postemergence	1 pt	<p><b>Application after planting but Prior to Garlic Emergence:</b> Apply Goal 2XL after planting, but prior to crop emergence, for preemergence control of listed broadleaf and grass weeds using ground, air or sprinkler irrigation (chemigation).</p> <p><b>Aerial Application:</b> Apply in a minimum spray volume of 10 gallons per acre. Follow Aerial Application instructions and precautions in the General Information section of this label.</p> <p><b>Postemergence and Directed Application:</b> Apply Goal 2XL as a directed or over-the-top spray to garlic that is at least 12 inches tall. Accurate, uniform placement of directed postemergence sprays is essential for effective weed control and to minimize injury to garlic. Use low-pressure sprays and a minimum spray volume of 20 gallons per acre. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.</p> <p><b>Sprinkler Irrigation (Portable Lateral or Solid Set)</b> <b>Preemergence or Postemergence:</b> Apply Goal 2XL at the recommended broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Apply after planting but prior to garlic emergence or postemergence when garlic is at least 12 inches tall. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.</p>

**Precautions:**

- **Garlic Response to Preemergence Applications of Goal 2XL:** Following a preemergence application of Goal 2XL, a chlorotic band around some of the leaves may be observed after the first irrigation (or rainfall) following garlic emergence.

**Transplanted Garlic: Postemergence Application Immediately after Planting**

Weed Control	Rate (per/acre)	Specific Use Directions
Postemergence	up to 2 pt	<p><b>All States Except Northeastern States:</b> Transplanted garlic is most tolerant of a postemergence application immediately after transplanting. An application of up to 2 pints per acre may be made within two days after transplanting. If less than 2 pints per acre is applied, a second application can be made two weeks or more after transplanting. Do not exceed the maximum use rate of 2 pints per acre of Goal 2XL per season as a result of multiple applications.</p>
Postemergence	2 - 4 fl oz	<p><b>Northeastern States, including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Multiple treatments at 2 to 4 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) per acre pre use season.</p>

**Key Weeds Controlled:**

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canarygrass (annual) eveningprimrose, cutleaf groundsel, common mallow, little (malva) nightshade, black pigweed, prostrate † pigweed, redroot †	puncturevine purslane, common † rocket, London sage, lanceleaf shepherdspurse † sowthistle, annual
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† Key weeds controlled at recommended rates in Northeastern States.

**Garlic - Crop-Specific Precaution (Postemergence Application):**

- Postemergence applications of Goal 2XL may cause chlorotic leaf banding, necrotic lesions, or stunting of the garlic plants. Symptoms may be more severe if garlic emerged under cool, wet, overcast, or foggy weather. These conditions are temporary and should not affect the vigor or development of garlic plants.

**Garlic - Crop-Specific Restrictions (Applicable to All Methods of Application):**

- In all states **except** Northeastern states, do not apply until **direct seeded** garlic plants have two (2) fully developed true leaves. In the Northeastern states, do not apply until direct seeded garlic plants have three (3) fully developed true leaves. Application made prior to the specified growth stage may result in serious crop injury and is not recommended.
- Do not apply more than a total of 2 pints per acre of Goal 2XL per use season as a result of multiple applications.
- Do not apply within 60 days of harvest.
- In direct seeded garlic (except in California), do not apply Goal 2XL as a preemergence treatment.
- Use only on dry bulb garlic.
- Do not apply to garlic grown for seed.
- For weed control in Garlic, do not mix Goal 2XL with oils, surfactants, liquid fertilizers or pesticides except as specified on approved Dow AgroSciences Supplemental Labeling.
- Do not apply to garlic plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes or diseases.

**GUAVA (Bearing and Non-bearing)**  
(For Use Only in Hawaii)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	5 - 8	<p><b>Preemergence or Postemergence:</b> In established guava plantings, apply preemergence or postemergence to weeds. Increase the spray volume to ensure adequate coverage in high densities of emerged weeds or heavy trash. Minimize contact with guava plants by directing the spray to the soil surface. Spray shields are suggested to minimize spray contact in young plantings.</p> <p>For broader spectrum postemergence control of grass and broadleaf weeds, Goal 2XL may be applied in tank mix combination with paraquat (Gramoxone) or glyphosate. Follow applicable use directions, precautions and limitations on the labels of the respective tank mix products.</p>
Postemergence	2 - 8	

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<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Prevent direct spray or drift from contacting green stems, fruit or foliage, as injury may result.</li> <li>• Alone or in tank mix combination, Goal 2XL should be applied to only healthy growing trees.</li> <li>• Application of Goal 2XL should be made only after new foliage growth has hardened off.</li> </ul>
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply more than 8 pints per acre of Goal 2XL in a single application or more than 16 pints per season.</li> <li>• Do not apply Goal 2XL within 1 day of harvest.</li> </ul>

**Key Weeds Controlled:**

Preemergence	Postemergence
ageratum buttonweed crotalaria purslane, common spurge, garden	purslane, common spurge, garden

**HORSERADISH**

<p><b>Agricultural Use Requirements:</b> Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• Coveralls</li> <li>• Chemical-resistant footwear plus socks</li> <li>• Chemical-resistant gloves made of any waterproof material</li> <li>• Shoes plus socks</li> </ul>
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Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2	Apply Goal 2XL after the horseradish roots have been planted but prior to emergence of new horseradish leaves. Emerged leaves that receive direct or indirect spray (drift) contact will be injured. If necessary, cultivate before application to destroy germinated weeds.
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply Goal 2XL to horseradish plantings that have been weakened or stressed due to unfavorable temperature conditions, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply more than 2 pints of Goal 2XL per acre per crop.</li> </ul>		

**Key Weeds Controlled:**

lambquarters, common pigweed, redroot purslane, common	shepherdspurse smartweed, pennsylvania
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**JOJOBA**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	Initial application may be made when jojoba plants have reached a height of 6 inches or more. Use sufficient spray volume to ensure thorough coverage of dense weed growth. Sprays should be directed to the base of jojoba plants to avoid possible phytotoxicity to foliage. Spray shields are suggested for use in young plantings. Use higher rate in rate range for extended residual preemergence weed control. Make follow-up applications as necessary to maintain weed control. For early postemergence control of susceptible seedling weeds (less than 8 inches tall) apply Goal 2XL at the rate of 4 pints per acre. Goal 2XL may be applied at the rate of 6 pints per acre for postemergence control of weeds up to 12 inches tall. For optimum residual control, apply during the fall or winter months. Control may be unsatisfactory for weeds greater than 12 inches tall.
<b>Precautions:</b>		
<ul style="list-style-type: none"> <li>• Avoid direct spray or drift contact with jojoba flowers or buds as severe injury may result.</li> <li>• Over-the-top applications may cause burning, crinkling or bronzing of jojoba foliage, particularly to the youngest leaves, flowers, or buds present at the time of application.</li> </ul>		
<b>Crop-Specific Restrictions:</b>		
<ul style="list-style-type: none"> <li>• Do not apply more than 6 pints per acre per year.</li> </ul>		

**Key Weeds Controlled:**

Preemergence	Postemergence
burclover	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf <sup>††</sup>
filaree, broadleaf	filaree, redstem <sup>††</sup>
filaree, redstem	filaree, whitestem <sup>††</sup>
filaree, whitestem	groundsel, common <sup>†</sup>
groundsel, common	henbit
henbit	mallow, little (malva, cheeseweed)
knotweed, prostrate	minerslettuce
lambquarters, common	nettle, burning
lettuce, prickly	pigweed, redroot <sup>†</sup>
mallow, little (malva, cheeseweed)	redmaids
pigweed, redroot	shepherdspurse
purslane, common	sowthistle, annual
redmaids	
rocket, London	
shepherdspurse	
sowthistle, annual	

<sup>†</sup> Highest rate may be required for acceptable postemergence control.

<sup>††</sup> Goal 2XL at the 6-pint rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

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**MINT (SPEARMINT AND PEPPERMINT)**

Mint (Spearmint and Peppermint) Grown on Mineral Soils		
Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	<p><b>Oregon and Washington (East of Cascades), California, Montana, Idaho, Nevada, South Dakota and Utah:</b> Apply from December through March when mint is dormant.</p> <p>When used postemergence (to weeds), add an 80% active ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray volume and apply before weeds exceed a height of 4 inches.</p> <p>Late winter applications will provide maximum activity on summer weeds, but summer grass control may be inconsistent. For best results, fall-plowed fields should be harrowed to provide a smooth surface for application. In furrow-irrigated fields, corrugating must be done prior to application. Corrugating or harrowing will result in disturbance of treated soil or movement of untreated soil into treated areas, resulting in poor weed control.</p>
Preemergence	2 - 3	<p><b>Peppermint (Western Oregon Willamette Valley):</b> Apply Goal 2XL from November through February to dormant peppermint only. Treatments in January or February generally provide better residual preemergence control of annual broadleaf weeds. Full season weed control should not be expected from this treatment.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Application must be made prior to emergence of new spring growth or severe crop injury may result.</li> <li>• <b>In the Willamette valley, do not apply Goal 2XL to mint that has been plowed.</b></li> <li>• Apply Goal 2XL only to healthy stands of spearmint and peppermint. Do not apply to spearmint or peppermint weakened by disease, drought, flooding, excessive fertilizer, soil salts, previously applied pesticides, nematodes, insects, or winter injury, as severe injury may result.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not make more than one application of Goal 2XL per season.</li> </ul>		

**Key Weeds Controlled:**

bedstraw, catchweed	†oats, wild
†bluegrass, annual	orach, red
flixweed	pepperweed, yellowflower
groundsel, common	pigweed, redroot
lambquarters, common	†ryegrass, Italian
lettuce, prickly (china lettuce)	shepherdspurse
mustard, blue (purple mustard)	sowthistle, annual
mustard, tumble (Jim hill mustard)	tansymustard
nightshade, hairy	thistle, Russian

† Control of annual grasses is best obtained when Goal 2XL is applied prior to emergence. Postemergence control of winter annual grasses is generally unsatisfactory if applications are made after the 1 to 2-leaf stage.

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Mint (Spearmint and Peppermint) Grown on Muck Soils: For Use Only on Mint Grown in Indiana, Michigan, Montana, North Dakota, South Dakota, and Wisconsin		
Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	<b>Note:</b> Use directions in this section apply only to spearmint and peppermint grown on muck soils (organic matter content of 20% or greater). When used postemergence (to weeds), add an 80% active ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray volume and apply before weeds exceed a height of 4 inches.
<b>Precautions:</b> <ul style="list-style-type: none"> <li>• Application must be made prior to emergence of new spring growth or severe crop injury may result.</li> <li>• To avoid excessive crop injury, do not apply within 4 days of planting (sprigging) spearmint or peppermint.</li> <li>• Apply Goal 2XL only to healthy spearmint or peppermint. Do not apply to spearmint or peppermint that has been weakened by disease, nematodes, soil insects, or winter injury, as severe injury may result.</li> </ul>		
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li>• Do not make more than one application of Goal 2XL per season.</li> </ul>		

**Key Weeds Controlled:**

Knotweed, prostrate pigweed, redroot purslane, common
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**NON-CROP USE**

(Non-Food-Producing, Non-Cultivated Agricultural or Non-Agricultural Areas, such as Highway and Utility Rights-of-Way, Industrial Sites, Tank Farms, Storage Areas, Airports, Fencerows, and Farmsteads)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	5 - 8 2 - 8	<b>Preemergence:</b> Use higher rate in rate range for longer residual control. <b>Postemergence:</b> Use the lower rate in the rate range for control of susceptible weeds in the early postemergence stage, less than 4 inches tall. Use the higher rate for weeds up to 12 inches tall. Application to weeds beyond the 4-inch stage may result in partial control.
<b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. <ul style="list-style-type: none"> <li>• <b>Preemergence:</b> For broader-spectrum residual preemergence weed control, Goal 2XL may be applied in tank mix combination diuron (Karmex) or simazine.</li> <li>• <b>Postemergence:</b> For additional postemergence control of susceptible grass and broadleaf weeds, Goal 2XL may be applied in tank mix combination with paraquat (Gramoxone) or glyphosate.</li> </ul>		
<b>Site-Specific Restrictions:</b> <ul style="list-style-type: none"> <li>• Do not feed or allow animals to graze on any areas treated with Goal 2XL.</li> <li>• Do not apply more than 8 pints per acre in a single application.</li> </ul>		

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**Key Weeds Controlled:**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed (malva)	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf
filaree, broadleaf	filaree, redstem
filaree, redstem	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	nettle, burning
lambquarters, common	pigweed, redroot
lettuce, prickly	purslane, common
pigweed, redroot	redmaids
purslane, common	shepherdspurse
redmaids	sowthistle, annual
rocket, London	
shepherdspurse	
sowthistle, annual	

**ONIONS**

**Agricultural Use Requirements:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

**Cultural Considerations:** For maximum preemergence activity, the soil surface should be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, cultural practices that result in redistribution or disturbance of the soil surface or move untreated soil into treated areas will reduce weed control. For best results, make applications to established beds that are left undisturbed during the time period for which weed control is desired.

Direct Seeded Onions: Postemergence Application		
Weed Control	Rate (per acre)	Specific Use Directions
Postemergence	2 - 4 fl oz	<b>Northeastern States Including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Apply Goal 2XL at 2 to 4 fl oz per acre to seeded onions that have at least 3 true leaves using ground equipment. Multiple treatments at 2 to 4 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.
Postemergence	0.5 - 1 pt	<b>Western States Including Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington:</b> Apply Goal 2XL at 0.5 to 1 pt per acre to seeded onions that have at least 2 true leaves using ground

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		equipment. Multiple treatments at 0.5 to 1 pt per acre may be applied up to a maximum of 2.5 pints per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.
Postemergence	0.5 pt	<b>All Other States:</b> Apply Goal 2XL at 0.5 pt per acre to seeded onions that have at least 2 true leaves using ground equipment. Multiple treatments at 0.5 pt per acre may be applied up to a maximum of 2 pints per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.
Postemergence	(see above)	<b>Sprinkler Irrigation - All Except Northeastern States (Center Pivot, Portable Lateral or Solid Set):</b> Apply Goal 2XL at the recommended broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.

Transplanted Onions: Application Immediately before Planting		
Weed Control	Rate (per/acre)	Specific Use Directions
Preemergence Postemergence	1 - 2 pt	<b>Pre-transplant Application (Not for Use in Northeastern States or Western States:</b> Goal 2XL may be applied as a broadcast or band application after completion of tillage operations, but before transplanting of onion plants. Transplanting should be accomplished with a minimum of soil disturbance and, for optimum weed control, soil surfaces should be left undisturbed after transplanting for the period for which weed control is desired. However, timely cultivation after weed emergence will assist in weed control. If less than 2 pt per acre was applied as a pre-transplant application, postemergence applications may be made as instructed for seeded onions. Do not exceed the maximum use rate of 2 pt per acre per use season as a result of multiple applications.

Transplanted Onions: Application Immediately after Planting		
Application Timing for Target Weeds	Rate (per/acre)	Specific Use Directions
Preemergence	up to 2 pt	<b>All States Except Northeastern States:</b> Transplanted onions are most tolerant of a postemergence application immediately after transplanting. An application of up to 2 pints per acre may be made within two days after transplanting. If less than 2 pints per acre is applied, a second application can be made two weeks or more after transplanting. Do not exceed the maximum use rate of 2 pints per acre of Goal 2XL per season as a result of multiple applications.
Preemergence	2 - 4 fl oz	<b>Northeastern States including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Multiple treatments at 2 to 4 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) per acre pre use season.

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**Onions - Use Precautions (Applicable to All Areas and Methods of Application):**

- Goal 2XL can cause necrotic lesions, twisting, pigtailling or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the specified onion growth stage of the onion plants as specified in Specific Use Directions.
- Do not apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes or diseases.

**Onions - Crop-Specific Restrictions (Applicable to All Areas and Methods of Application):**

- In all states **except** Northeastern states, do not apply until **direct seeded** onion plants have at least two (2) fully developed true leaves. In the Northeastern states, do not apply until direct seeded onion plants have at least three (3) fully developed true leaves. Application made prior to the specified growth stage may result in serious crop injury and is not recommended.
- Do not apply more than a total of 2 pints per acre of Goal 2XL per use season as a result of multiple applications.
- Do not apply within 45 days of harvest.
- Do not apply Goal 2XL as a preemergence treatment to direct seeded onions.
- Use only on dry bulb onions.
- Do not apply to onions grown for seed, except as instructed in separate use directions.
- For use in onions, do not mix Goal 2XL with oils, surfactants, liquid fertilizers or pesticides except as specified on approved Dow AgroSciences Supplemental Labeling.

**Key Weeds Controlled:****Postemergence**

canarygrass (annual)  
 eveningprimrose, cutleaf <sup>(a)</sup>  
 groundsel, common  
 mallow, little (malva)  
 nightshade, black  
 pigweed, prostrate <sup>(b)</sup>  
 pigweed, redroot <sup>(a, b)</sup>  
 puncturevine  
 purslane, common <sup>(a, b)</sup>  
 rocket, London  
 sage, lanceleaf  
 shepherdspurse <sup>(b)</sup>  
 sowthistle, annual

<sup>a</sup> Weeds controlled when applied as a pre-transplant application. In addition, Goal 2XL at the rate of 1 to 2 pints per acre will provide control/suppression of carpetweed, Pennsylvania smartweed, galinsoga, common lambsquarters, and wild mustard. Applications of Goal 2XL to muck soils may result in partial control or suppression of the weeds listed.

<sup>b</sup> Specific weeds controlled at rates recommended for use in northeastern states (see DOSAGE section).

**ONIONS GROWN FOR SEED**

**Agricultural Use Requirements:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

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- Coveralls
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Weed Control	Rate (per/acre)	Specific Use Directions
Preemergence	2 fl oz	<p><b>Northeastern States including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:</b> Multiple treatments at 2 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) per acre pre use season. Prior to initial treatment, seeded onions must have at least four (4) true leaves. Multiple treatments at the aforementioned rate may be applied.</p>
Preemergence	up to 0.5 pt	<p><b>All other States:</b> Apply Goal 2XL at up to 0.5 pt per acre to seeded onions that have at least three (3) true leaves. Multiple treatments at 0.5 pt per acre may be applied up to a maximum of 2 pints per acre pre use season. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.</p> <p><b>Sprinkler Irrigation - Portable Lateral or Solid Set:</b> Apply Goal 2XL at the recommended broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.</p>

**Use Precautions:**

- **Notice:** Some varieties or inbred lines of onions may be more susceptible to Goal 2XL. Care should be taken to insure that the particular onion variety or line being grown is tolerant to Goal 2XL. It is suggested that all onion varieties or lines be tested in limited areas to ensure an adequate level of crop tolerance prior to an application for postemergence weed control.
- Goal 2XL can cause necrotic lesions, twisting, pigtailling or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the specified onion growth stage of the onion plants as specified in Specific Use Directions.
- Do not apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.

**Crop-Specific Restrictions:**

- In all states, do not apply Goal2XL until the onions have reached the minimum leaf stage specified. Application prior to the recommended stage of development may result in serious injury and is not recommended.
- Do not apply more than a total of 2 pints per acre of Goal 2XL during one use season.
- Do not apply within 60 days of harvest.
- For seeded onions, do not apply Goal 2XL with oils, surfactants, liquid fertilizers or other pesticides except as specified in approved Dow AgroSciences Supplemental Labeling.

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**Key Weeds Controlled:**

Postemergence
canarygrass (annual)
eveningprimrose, cutleaf
groundsel, common
mallow, little (malva)
nightshade, black,
pigweed, prostrate †
pigweed, redroot †
puncturevine
purslane, common †
rocket, London
sage, lanceleaf
shepherdspurse
sowthistle, annual

† Specific weeds controlled at rates recommended for use in northeastern states (see DOSAGE section).

**PAPAYA**

(For Use Only in Hawaii)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4	<p>The initial application should occur no sooner than 4 months after transplanting or 6 months after direct seeding, and after the papaya has reached a minimum height of 4 feet. Applications may be repeated at approximate 4-month intervals.</p> <p>Apply preemergence or postemergence to weeds. Increase the spray volume to assure adequate coverage of dense growth of emerged weeds. Goal 2XL must be applied as a directed spray to the orchard floor beneath the papaya plants. Accurate, uniform placement of Goal 2XL is essential for effective weed control and to minimize crop injury. Goal 2XL must be applied using rigid precision ground sprayer equipment.</p> <p>Postemergence applications may be made up to the 4 leaf stage of weed growth.</p>
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>Do not allow the herbicide solution, spray, drift or mist to contact green bark, stems, fruit or foliage as injury may result.</li> <li>Do not use Goal 2XL on papaya plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply more than 4 pints of Goal 2XL per broadcast acre in a single directed spray or more than 12 pints per broadcast acre per year as a result of multiple applications.</li> <li>Do not apply Goal 2XL within 1 day of harvest.</li> </ul>		



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**Key Weeds Controlled:**

amaranth, spiny purslane, common	spurge, garden
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**SOYBEANS**

(Not for Use in California)

**Soybeans - Early Preplant Application in Conservation Tillage Systems**

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	1.5 - 3	<b>Early Preplant Application:</b> Surface apply Goal 2XL to the stale seedbed approximately 14 days before planting conservation tillage soybeans for postemergence and preemergence residual broadleaf control. Use a spray volume of 20 or more gallons per acre and increase the spray volume if growth of existing weeds is dense. Goal 2XL at 2 to 3 pints provides early season suppression of annual grasses, but should not be relied upon as a basic grass herbicide. A planned program utilizing herbicides registered for early preplant, preemergence or postemergence grass control in soybeans is recommended. Use of ridge or slot planter or a similar planting implement that causes minimal soil disturbance is recommended. Movement or redistribution of surface soil will reduce herbicidal effectiveness.

**Soybeans: No-Till (Double-Crop)**

Application Timing for Target Weeds	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	0.5 - 2	<b>Preemergence Application to Soybeans:</b> Applied preemergence, Goal 2XL provides postemergence and residual preemergence control of susceptible broadleaf weeds. <b>Apply Goal 2XL within one day after planting. Later applications may result in severe crop injury and are not recommended.</b> Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense.
<b>Tank Mixing:</b> For enhanced postemergence control of existing grass and broadleaf weeds, Goal 2XL may be tank mixed with paraquat (Gramoxone) or glyphosate. For extended residual control of annual grasses no-till soybeans, Goal 2XL may also be tank mixed with a residual grass herbicide such as Bronco Herbicide, Dual Magnum Herbicide, or Lasso Herbicide.		
Postemergence	1	<b>Postemergence Directed Application:</b> Goal 2XL may be applied as a post-directed application. Optimum control is achieved when Goal 2XL is applied to seedling weeds not exceeding 4 true leaves (not counting cotyledon leaves) and actively growing. Use of an 80% nonionic surfactant cleared for application to growing crops at the rate of 2 pints per 100 gallons of spray is recommended whenever postemergence weed control is desired. <b>For postemergence application, Soybeans must be a minimum 8 inches tall.</b> Use a minimum of 2 flat fan nozzles per row. Use branch lifters or shields to prevent excessive spray contact to the soybean plants. Do not use hollow cone nozzles.

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### Soybeans: Grown Under Conventional Tillage Systems

Application Timing for Target Weeds	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	1 - 1.5	<p><b>Preemergence Application to Soybeans:</b> Goal 2XL provides preemergence control of susceptible broadleaf weeds. <b>Apply Goal 2XL within one day after planting. Later applications may result in severe crop injury and are not recommended.</b> Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense. The 1.5 pint per acre rate will assist in early season annual grass control but should not be relied upon as a basic grass herbicide. Goal 2XL may also be applied as a preemergence application following a preplant incorporated grass herbicide treatment</p>
<p><b>Preemergence Tank Mixes (To Control Additional Grass and Broadleaf Weeds):</b> Apply preemergence tank mixes of Goal 2XL within one day after planting. Later applications may result in severe crop injury and are not recommended.</p> <ul style="list-style-type: none"> <li>• Goal 2XL at 0.6 to 1.5 pints per acre may be applied preemergence to soybeans in tank mix with Dual Magnum Herbicide or Lasso Herbicide. Goal 2XL may be applied alone as a preemergence application following a preplant incorporated grass herbicide application or as a tank mix in a preemergence application with Dual Magnum, or Lasso herbicides. Refer to the label of tank mix product for additional weeds controlled.</li> <li>• Goal 2XL at 0.6 to 0.8 pints per acre may be applied preemergence to soybeans in tank mix with 1 to 1.67 pints of Command 6EC herbicide. Refer to the label for Command 6EC for additional weeds controlled.</li> </ul>		
Postemergence	1	<p><b>Postemergence Directed Sprays:</b> Goal 2XL may be applied as a post-directed application at 1 pint per acre. Optimum control is achieved when weeds not exceed 4 true leaves and are actively growing (do not count cotyledon leaves). Use of an 80% nonionic surfactant cleared for application to growing crops at the rate of 2 pints per 100 gallons of spray is recommended whenever postemergence weed control is desired. <b>For postemergence application, Soybeans must be a minimum 8 inches tall.</b> Use a minimum of 2 flat fan nozzles per row. Use branch lifters or shields to prevent excessive spray contact to the soybean plants. Do not use hollow cone nozzles.</p>
<p><b>Postemergence Tank Mixes:</b> For broader spectrum control of broadleaf weeds, Goal 2XL may be applied in tank mix with Butoxone Herbicide or Butyrac 200 Herbicide. Use 1 pint of Goal 2XL with 1 pint of Butoxone or 0.7 to 0.9 pint of Butyrac 200 per acre. Refer to label of tank mix product for additional weeds controlled.</p>		

#### Soybeans - Precautions (All Methods and Timings to Soybeans):

- Soybeans are tolerant to preemergence and post-directed applications of Goal 2XL at recommended rates, however, under certain conditions injury may occur. Heavy splashing rain shortly after crop emergence or cold, wet soil conditions during early growth stages can cause leaf cupping and crinkling. When injury occurs, it is generally limited to the first few leaves that develop after crop emergence. Soybeans recover from this injury and yields are not adversely affected. Soybeans accidentally sprayed during a post-directed application will exhibit necrotic spotting and injury to the soybean plant. Exercise care to avoid spray contact with the soybean leaves.

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**Soybeans - Crop-Specific Restrictions:**

- **Tank Mixing:** Read and observe all label directions before using. Follow applicable use directions, precautions and limitations on the labels of the respective tank mix products. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive limitations must apply.
- Do not make more than two applications of Goal 2XL per growing season.
- Do not apply more than 2 pints (0.5 lbs active) of Goal 2XL per acre during one growing season as a result of preemergence application in no-till (double-crop) or conventional till soybeans, or post-directed in conventional till soybeans. If early preplant application is made, do not apply more than 3 pints (0.75 lb active) of Goal 2XL per acre during one growing season.
- Do not apply a post-directed application of Goal 2XL to soybeans after the initial appearance of blooms.

**Key Weeds Controlled (Goal 2XL Alone):**

Preemergence	Postemergence
groundcherry, cutleaf †	cocklebur, common
jimsonweed	croton, tropic
lambsquarters, common	groundcherry, cutleaf
nightshade, American black †	groundcherry, Wright
nightshade, black †	jimsonweed
pigweed, redroot	lambsquarters, common
poinsettia, wild	morningglory, annual (up to 6 leaf)
shepherdspurse	mustard, wild
sida, prickly (teaweed)	nightshade, American black
smartweed, Pennsylvania	nightshade, black
sowthistle, common †	nightshade, hairy
velvetleaf	pigweed, redroot
	† poinsettia, wild
	purslane, common
	sesbania, hemp
	shepherdspurse
	sicklepod ††
	sida, prickly (teaweed) †
	smartweed, Pennsylvania
	velvetleaf

† Multiple applications may be required for acceptable control.

†† Post-direct applications of Goal 2XL will kill or suppress seedlings not exceeding the one true leaf stage.

**TARO**

(For Use Only in Hawaii)

For use only to dryland taro grown in Hawaii. Dryland taro is defined as taro grown without irrigation, or by using irrigation practices that do not result in run-off, irrigation return flow, or other loss of irrigation water from the production area. If irrigation is used, the water applied shall not exceed the field capacity of the soil.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2	<b>Preemergence to Taro and Weeds:</b> A single application of Goal 2XL at the rate of 2 pints per acre may be applied within

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		1 week after transplanting but prior to emergence of taro plants.
Postemergence	1	<b>Postemergence to Taro and Weeds:</b> Goal 2XL may be applied as a post-directed or band application at the rate of 1 pint per acre. Effective control of succulent weed seedlings in the 2-to 3-leaf stage can usually be obtained. Applications to weeds beyond the 3-leaf stage may result in partial control.
<b>Precautions:</b> <ul style="list-style-type: none"> <li>• Accurate, uniform placement of Goal 2XL is essential for effective weed control and to minimize crop injury. Taro foliage receiving accidental spray or drift will be injured. Goal 2XL must be applied using rigid precision ground sprayer equipment.</li> <li>• Occasionally, after the use of Goal 2XL, spotting, crinkling or flecking may appear on the leaves of the taro. Leaves that receive direct or indirect (drift) spray contact will be injured.</li> <li>• Do not use Goal 2XL on taro plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.</li> </ul>		
<b>Crop-Specific Restrictions:</b> <ul style="list-style-type: none"> <li>• Do not apply more than 2 pints of Goal 2XL per broadcast acre as a single preemergence application.</li> <li>• Do not apply more than 1 pint of Goal 2XL per acre in a single post-direct spray or more than 2 pints per acre per season as a result of multiple post-directed applications.</li> <li>• Do not apply more than 4 pints of Goal 2XL per acre per season as a result of preemergence and post-direct applications.</li> <li>• Do not apply Goal 2XL within 6 months of harvest of taro (corms, leaves).</li> </ul>		

**Key Weeds Controlled:**

amaranth, spiny purslane, common spurge, garden
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**TREEFRUIT/NUT/VINE CROPS (Dormant Application)**

Almond, Apple, Apricot, Avocado, Beechnut, Brazil Nut, Butternut, Cashew, Cherry, Chestnut, Chinquapin, Crab Apple, Date, Feijoa, Fig, Filbert, Grapes, Hickory Nut, Kiwi, Loquat, Macadamia Nut, Mayhaws, Nectarine, Olives, Peach, Pear, Pecan, Persimmon, Pistachio, Plum, Pomegranates, Prune, Quince, and Walnut

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence (broadcast application)	5 - 6	Apply Goal 2XL a minimum of 20 gallons of water per acre. Use higher spray volumes to ensure thorough coverage in high densities of emerged weeds or heavy trash. Sprays should be directed to the soil and the base of dormant trees or vines. <b>In California,</b> Goal 2XL may be applied as an over-the-top or directed spray to dormant nonbearing grape plantings. The use of a low-pressure sprayer is suggested. Do not apply over-the-top to grape plantings that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, injury from previously applied pesticides, or injury due to insects, nematodes, or diseases, as severe crop injury may result.
(banded application)	5 - 8	

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Postemergence (broadcast application)	2 - 6	Apply in a spray volume of 40 or more gallons per acre. For optimum control, apply when weeds are at seedling stage of growth.
(banded application)	2 - 8	The lower rate in the rate range (2 pints per acre) is recommended for the control of susceptible seedling weeds in the early postemergence stage up to the 4-leaf stage. Higher rates (up to 6 pints per acre) may be used for weeds up to the 6-leaf stage. Applications to weeds beyond the 6-leaf stage may result in partial control.
<p><b>Tank Mixing:</b> Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. See labels of tank mix partners to determine suitability and use rates for various crops.</p> <ul style="list-style-type: none"> <li>• <b>Postemergence:</b> For broader spectrum postemergence control of listed grass and broadleaf weeds, Goal 2XL may be applied in tank mix with paraquat (Gramoxone) or glyphosate. These herbicides may also be added to preemergence tank mixes for enhanced control of existing weeds.</li> <li>• <b>Preemergence:</b> For broad-spectrum preemergence control of susceptible grass and broadleaf weeds in listed treefruit, nut or vine plantings, Goal 2XL may be applied in tank mix with napropamide (Devrinol herbicide), diuron (Karmex herbicide), pronamide (Kerb<sup>®</sup> herbicide), simazine, norflurazon (Solicam herbicide) or oryzalin (Surflan herbicide).</li> </ul>		
<p><b>Chemigation (All States):</b> For dormant season application using sprinkler (low-volume (micro sprinkler), drip (trickle), and flood (basin) irrigation systems, apply Goal 2XL at the specified rate per acre. Follow applicable directions in the Chemigation section of this label when making applications using irrigation systems.</p>		
<p><b>Precautions:</b></p> <ul style="list-style-type: none"> <li>• Goal 2XL or any of the combinations recommended on this label should be applied to only healthy growing trees or vines.</li> <li>• Avoid direct plant contact. Direct spray toward the base of tree or vines unless specific use recommendations allow over-the-top application.</li> </ul>		
<p><b>Crop-Specific Restrictions:</b></p> <ul style="list-style-type: none"> <li>• In all states, unless otherwise specified, do not apply Goal 2XL during the period between bud swell and completion of final harvest or when fruit/nuts are present. Goal 2XL may be applied upon completion of final harvest.</li> <li>• In Arizona and California, Goal 2XL may be applied during the period following completion of final harvest up to February 15 (February 1st in the Coachella Valley, California). Applications made after these calendar dates, but prior to bud swell, may result in significant crop injury and are the responsibility of the user.</li> <li>• For banded applications, up to 8 pints per acre of Goal 2XL per use season may be applied within the treated band. Do not apply more than a maximum of 6 pints per acre per use season on a broadcast basis.</li> <li>• Do not apply to grapes or kiwi established less than 3 years unless vines are on a trellis wire a minimum of 3 feet above the soil surface.</li> <li>• Do not apply to grapes or kiwi that are not staked or trellised unless vines are free standing.</li> </ul>		

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**Key Weeds Controlled (Arizona and California):**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed (malva)	fiddleneck, coast
fiddleneck, coast	filaree, broadleaf †
filaree, broadleaf	filaree, redstem †
filaree, redstem	filaree, whitestem †
filaree, whitestem	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	nettle, burning
lambsquarters, common	pigweed, redroot
lettuce, prickly	redmaids
pigweed, redroot	shepherdspurse
purslane, common	sowthistle, annual
redmaids	
rocket, London	
shepherdspurse	
sowthistle, annual	

† Goal 2XL at the 6-pint rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

**Key Weeds Controlled (All Other States Except Arizona and California):**

Preemergence	Postemergence
camphorweed	balsamapple
cudweed, narrowleaf	cocklebur, common
eveningprimrose, cutleaf †	cudweed, narrowleaf ††
groundcherry, cutleaf	eveningprimrose, cutleaf †††
jimsonweed	
lambsquarters, common	groundcherry, cutleaf
nightshade, American	groundcherry, Wright
black	jimsonweed
nightshade, black	lambsquarters, common
pepperweed, Virginia	morningglory, annual
pigweed, redroot	nightshade, American
poinsettia, wild	black
sida, prickly	nightshade, black
smartweed, Pennsylvania	pepperweed, Virginia
sowthistle, annual	pigweed, redroot
spurge, prostrate	poinsettia, wild
spurge, spotted	purslane, common
velvetleaf	sesbania, hemp
	shepherdspurse
	sida, prickly (teaweed)
	smartweed, pennsylvania
	sowthistle, annual
	velvetleaf

† Highest rate and/or multiple applications may be required for acceptable control.

†† Maximum 0.5-inch diameter.

††† Highest rate and/or multiple applications may be required for acceptable control.

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**GRAPES (Non-Dormant Application)**  
(California Only)

Goal 2XL may be applied as a directed spray or, for supplemental preemergence weed control, through low-volume sprinkler (micro sprinkler) or drip irrigation systems for control or suppression of listed broadleaf weeds in non-dormant grapes (raisin and wine grapes only). Goal 2XL may also be applied to all grapes (raisin, table, and wine) as a dormant season application. Refer to Treefruit/Nut/Vine Crops (Dormant Application) section above for use directions for dormant season application to grapes.

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	2	Goal 2XL may be applied preemergence or postemergence to weeds either as a directed spray in a minimum spray volume of 20 gallons per acre or through low-volume sprinkler (micro sprinkler) or drip irrigation systems. Repeat applications may be required. Applications may be made from completion of bloom up to 14 days before to harvest.  When applied as a postemergence directed spray, add 1 quart 80% active nonionic surfactant cleared for application to growing crops per 100 gallons of spray. Sprays should be directed to the soil and the base of vines.
Postemergence	1 - 2	
<b>Tank Mixing:</b> <ul style="list-style-type: none"> <li>When applied as a directed postemergence spray using ground equipment, Goal 2XL may be applied in tank mix with paraquat (Gramoxone) or glyphosate in a minimum spray volume of 10 gallons per acre. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.</li> </ul>		
<b>Chemigation:</b> Follow chemigation instructions in General Information section. <ul style="list-style-type: none"> <li><b>Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation:</b> Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the canopy. Meter Goal 2 XL at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Use of Goal 2XL through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously applied broadcast or directed treatments begin to break down.</li> </ul>		
<b>Precautions:</b> <ul style="list-style-type: none"> <li><b>Crop Tolerance:</b> The use of Goal 2XL may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift, soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Grape leaves that are immature or expanding at the time of contact with Goal 2XL are the most susceptible to foliage injury. Grapes may exhibit some small blemishes (spots or flicks) on the fruit.</li> <li>Goal 2xl is phytotoxic to plant foliage. Avoid drift to all other crops and nontarget areas. Do not apply when weather conditions favor drift.</li> </ul>		

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**Crop-Specific Use Restrictions:**

- The total amount of Goal 2XL applied during one season (from completion of final harvest through dormancy to non-dormant use covered by this section) cannot exceed 6 pints per acre as a result of multiple applications in any given area (broadcast, banded, or within the wetted area of the low-volume sprinkler or drip irrigation system).
- Do not apply within 14 days of harvest.
- Do not initiate application of Goal 2XL in non-dormant grapes until the completion of the bloom period.
- Do not apply to grapes established less than 3 years unless vines are either on a trellis wire a minimum of 3 feet above the soil surface, or protected by grow tubes.
- Goal 2XL should be applied only by ground application equipment of through low-volume sprinkler (micro sprinkler) or drip (trickle) irrigation systems.
- Apply Goal 2XL as a non-dormant application to wine grapes or raisin grapes only.

**Key Weeds Controlled or Suppressed:**

Preemergence	Postemergence
burclover	cheeseweed (malva)
cheeseweed, malva	fiddleneck, coast
fiddleneck, coast	groundsel, common
groundsel, common	henbit
henbit	minerslettuce
knotweed, prostrate	morningglory species, annual
lambsquarters, common	mustard, black
minerslettuce	nettle, burning
mustard, black	nightshade, black
nettle, burning	pigweed, redroot
nightshade, black	purslane, common
pigweed, redroot	redmaids
purslane, common	rocket, London
redmaids	sowthistle, annual
rocket, London	
sowthistle, annual	

**SUCKER CONTROL IN NON-DORMANT GRAPES**

(Washington and Oregon Only)

(Grapes for Wine and Processing Only)

Application Timing for Sucker Control	Rate (pt/acre)	Specific Use Directions
Grape suckers less than 12 inches in length.	1 - 2	Apply Goal 2XL in a three-foot band directed towards to newly emerging suckers at the base of the grapevine. The highest rate and/or a second application may be required to achieve an acceptable level of control/suppression of grape suckers. Avoid spray contact on flowers, grape clusters, or fruit. Use mounted nozzles to deliver the spray solution. Thorough spray coverage of sucker growth is essential for optimal activity. Use a spray volume of 50 or more gallons per acre (broadcast basis).

**Tank Mixing:** For enhanced postemergence sucker activity, a tank mixture of Goal 2XL with either glufosinate (Rely Herbicide) or paraquat (Gramoxone) can be used. Apply at the recommended rates and growth stages in a manner describe on the respective labels. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.



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**Precautions:**

- The use of Goal 2XL may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift or soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Leaves that are immature or expanding at the time of contact with Goal 2XL are the most susceptible to injury. Grape fruit may exhibit some small blemishes (spots or flecks) on the fruit.

**Crop-Specific Restrictions:**

- The total amount of Goal 2XL applied during one crop year (dormant and non-dormant) cannot exceed 6 pints per acre as a result of multiple applications in any give area (broadcast or banded).
- Goal 2XL should be applied only by ground application equipment.
- Apply Goal 2XL as a non-dormant application for sucker control only to wine or processed grapes.
- Do not apply Goal 2XL within 60 days of harvest.

**PISTACHIOS, WALNUTS, ALMONDS (CALIFORNIA ONLY)**

(Non-Dormant Application)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence	5 - 6	<b>Preemergence:</b> For residual weed control of listed weeds.
Postemergence	1 - 2	<b>Postemergence (Suppression):</b> Apply to seedling weeds less than 4 inches in height. Repeat applications may be required.
	2 - 6	<b>Postemergence (Cleanup):</b> Contact (postemergence) control for cleanup sprays and preharvest applications. Apply to seedling weeds less than 4 inches in height. Applications to weed seedlings beyond the 4-inch stage may result in partial control.

**Tank Mixing:** For broader spectrum grass and broadleaf weed control in tree row middles, Goal 2XL may be tank mixed with either paraquat (Gramoxone) or glyphosate. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.

**Chemigation:** Follow chemigation instructions in General Information section.

**Flood (Basin) Irrigation:** For flood (basin) irrigation systems, meter continuously into the water during the entire irrigation period. Best weed control results are obtained when a uniform distribution and flow of irrigation water is maintained over level land. Irrigation water treated with Goal 2XL must be contained on the treated area until the water is absorbed by the soil.

**Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation:** Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the tree canopy. Applications should be made prior to weed emergence; otherwise postemergence activity may be inconsistent due to uneven coverage. Meter Goal 2 XL at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Use of Goal 2XL through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously applied broadcast or directed treatments begin to break down.

**Precautions:**

- Direct spray toward the base of trees. Avoid direct contact with foliage or nuts.
- Goal 2XL should be applied only to healthy growing trees

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**Crop-Specific Use Restrictions:**

- When applied as a non-dormant treatment, Goal 2XL can only be applied to pistachio plantings between May and 7 days prior to harvest.
- When applied as a non-dormant treatment, Goal 2XL can only be applied to almond plantings between April 1 and September 30 and to walnut plantings between May 1 and September 30.
- Do not apply Goal 2XL within 7 days of harvest of pistachios.
- Do not apply Goal 2XL within 30 days of harvest of almonds.
- Do not apply Goal 2XL within 7 days of harvest of walnuts.
- Do not apply more than 6 pints of Goal 2XL per acre during the non-dormant season.

**Key Weeds Suppressed and/or Controlled**

cheeseweed (maiva)	morningglory species, annual
fiddleneck, coast	mustard, black
filaree, broadleaf	nettle, burning
filaree, redstem	pigweed, redroot
filaree, whitestem	purslane, common
groundsel, common	redmaids
henbit	rocket, London
minerslettuce	sowthistle, annual

**Additional Weeds Controlled in Tank Mix with Glyphosate or Paraquat**

barnyardgrass	horseweed (marestail)
bluegrass, annual	rocket, London
chickweed, common	ryegrass, Italian

**WINDBREAKS AND SHELTERBELTS**

(For Use Only in Minnesota, North Dakota, South Dakota and Wyoming)

Weed Control	Rate (pt/acre)	Specific Use Directions
Preemergence Postemergence	4 - 6	<p>Apply Goal 2XL may be applied as a broadcast, banded or post-directed spray. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Pre-transplant applications must be made after completion of soil preparation but prior to transplanting. Transplanting should be completed with minimal soil disturbance. For optimum weed control results, treated soil surfaces should be left undisturbed during the time period for which weed control is desired.</p> <p><b>Postemergence Weed Control:</b> For best results, apply before 4-leaf stage for broadleaf weeds or 2-leaf stage for grass weeds.</p> <p><b>Conifers:</b> Goal 2XL can be applied pre-transplant, post-directed or postemergence (over-the-top) to conifers. Postemergence or post-directed applications should be applied prior to budbreak or after new growth foliage has hardened off and new terminal buds have formed.</p> <p><b>Deciduous Hardwoods:</b> Goal 2XL has exhibited selectivity to many deciduous species when applied pre-transplant or as a post-directed spray prior to budbreak.</p>

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**Precautions:**

- **Important:** Some varieties or cultivars of conifers or deciduous species listed may be susceptible to Goal 2XL. Care should be taken to ensure that the particular variety to be sprayed with Goal 2XL is tolerant. For unfamiliar species, it is suggested that Goal 2XL be tested on a limited number of plants prior to large-scale application.
- Occasionally after the use of Goal 2XL, a spotting, crinkling or flecking may appear on the leaves of the deciduous species. Leaves that receive direct or indirect (drift) spray contact will be injured. Deciduous species typically rapidly outgrow these symptoms and develop normally.
- Application after budbreak may result in injury to deciduous species and is not recommended. If non-dormant application is required, apply only after foliage has fully expanded and hardened off. Avoid direct or indirect spray contact with the foliage by applying to the soil surface as a directed spray.
- Apply Goal 2XL only to healthy deciduous and/or conifer trees. Do not apply Goal 2XL to conifers or deciduous trees that have been weakened or under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury, as severe injury may result.

**Specific Use Restrictions for Shelterbelts:**

- Do not apply more than 6 pints of Goal 2XL per acre in a single application or more than 18 pints per acre per year.

**Key Broadleaf Weeds Controlled:**

buckwheat, wild	mustard, wild
burclover	nettle, burning
carpetweed	nightshade, black
dock, curly	nightshade, hairy
groundcherry, cutleaf	oats, wild
groundcherry, Wright	orach, red
groundsel, common	pepperweed, yellow flower
henbit	pigweed, prostrate
jimsonweed	pigweed, redroot
knotweed, prostrate	purslane, common
kochia	rocket, London
ladysthumb	shepherdspurse †
lambsquarters, common	smartweed, Pennsylvania
lettuce, prickly	sowthistle, annual
mallow, little	tansymustard
mayweed	thistle, Russian (seedling)
mustard, blue	velvetleaf
mustard, tumble	

† The highest rate or multiple applications may be required for acceptable control.

**Key Grasses Controlled:**

barnyardgrass	foxtail, giant
bluegrass, annual	goosegrass
crabgrass, large	witchgrass

Goal 2XL may be applied to numerous conifer and deciduous species, including the following:

**Conifer Species**

Common Name	Scientific Name
douglas-fir	<i>Pseudotsuga menziesii</i>
fir grand	<i>Abies grandis</i>

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fraser noble	<i>Abies fraseri</i> <i>Abies procera</i>
<b>hemlock</b> eastern hemlock western hemlock	<i>Tsuga canadensis</i> <i>Tsuga heterophylla</i>
<b>pine</b> Austrian eastern white jack Himalayan loblolly lodgepole longleaf monterey mugo ponderosa scotch shortleaf slash Virginia	<i>Pinus nigra</i> <i>Pinus strobus</i> <i>Pinus banksiana</i> <i>Pinus graffithii</i> <i>Pinus taeda</i> <i>Pinus contorta</i> <i>Pinus palustris</i> <i>Pinus radiata</i> <i>Pinus mugo</i> <i>Pinus ponderosa</i> <i>Pinus sylvestris</i> <i>Pinus echinata</i> <i>Pinus elliotii</i> <i>Pinus virginiana</i>
<b>spruce</b> blue dwarf Alberta Norway Sitka	<i>Picea pungens</i> <i>Picea glauca conica</i> <i>Picea abies</i> <i>Picea sitchensis</i>
<b>Arborvitae</b>	<i>Thuja occidentalis</i> <i>Thuja orientalis</i>
<b>juniper</b>	<i>Juniperus chinensis</i> <i>Juniperus horizontalis</i> <i>Juniperus procumbens</i> <i>Juniperus sabina</i> <i>Juniperus scopulorum</i>
<b>red cedar</b>	<i>Juniperus virginiana</i>
<b>yew</b>	<i>Taxus spp.</i>

**Deciduous Hardwood Species**

Common Name	Scientific Name
ash	<i>Fraxinus spp.</i>
crabapple	<i>Malus spp.</i>
eucalyptus	<i>Eucalyptus spp.</i>
lilac	<i>Syringa vulgaris</i>
maple, black	<i>Acer nigrum</i>
oak, northern red	<i>Quercus rubra</i>
olive, Russian	<i>Elaeagnus angustifolia</i>
poplar (cottonwood)	<i>Populus spp.</i>
sweetgum	<i>Liquidambar styraciflua</i>
sycamore	<i>Platanus occidentalis</i>
walnut, black	<i>Juglans nigra</i>

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**Inherent Risks of Use**

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1. Refund of purchase price paid by buyer or user for product bought, or
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