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printed May 17, 1994

Product Label

DowElanco XL* 2GR

ACCEPTED 2 1004 Under the Federal Insecticide, Fur i . 's, u: J Rodendcide Act, us den at lot, for the pesticide EPA Roy. No. 62719.24

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Contains Surflan*

XL 2GR is an easy-to-use herbicide. XL 2GR stops unsightly weeds and weed grasses BEFORE they start to grow in your established ornamental shrubs, flower beds and warm-season lawn grasses around your home. Used according to label directions, XL 2GR provides effective weed control all season long -- and gives your landscape that neat and clean look.

XL 2GR controls weeds in the following areas:

- Landscape ornamental trees and shrubs
- Ornamental ground covers
- Established flower beds
- Ornamental bulbs

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- Established warm season turfgrasses including:
 - bermudagrass
 buffalograss
 centipedegrass
- bahiagrass
- St. Augustinegrass · zoysiagrass
- tail fescue

Active Ingredients:

oryzalin: 3,5-dinitro-N ⁴ ,N ⁴ -dipropylsulfanilamide	benefin: N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dintro-p-toluidine	
Inert Ingredients	oryzalin: 3,5-dinitro-N ⁴ ,N ⁴ -dipropylsulfanilamide	

Contains ____lb of active ingredient per ____lb bag

Keep Out of Reach of Children

CAUTION

Causes Eye Irritation • Harmful if Swallowed, Inhaled, or Absorbed through the Skin

See back panel for additional Precautionary Statements and First Aid, and Directions For Use, including Storage and Disposal

EPA Reg. No. 62719-261

EPA Est. No.

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Read all directions carefully before using this product.

Herbicide

Net Weight __Ib

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Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with labeling. Read all directions carefully before using this product.

Not for use on plants grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior plantscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

WHAT IS XL 2GR?

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XL 2GR is a pre-emergence herbicide applied to the soil surface to prevent the growth of undesirable weeds and grasses. Simple for homeowner use, XL 2GR forms a protective "barrier" in the soil surface which prevent weeds from emerging.

WHAT WEEDS DOES XL 2GR CONTROL?

Used properly, XL 2GR controls the following broadleaf weeds and weed grasses:

Broadleaf Weeds bittercress carpetweed coast fiddleneck
common chickweed
common groundsel
common purslane
desert rockpurslane
Florida pusley
henbit
lambsquarters
London rocket
pigweeds
prostrate knotweed
prostrate spurge
puncturevine
redstem filaree
shepherd spurse
whitestem filaree
yellow woodsorrel (oxalis)

Weed Grasses

annual bluegrass barnvardorass brachiaria browntop panicum craborasses crowfootgrass fall panicum foxtails field sandbur goosegrass Italian ryegrass johnsongrass (seedling only) iunalerice little barley little lovegrass Mexican lovegrass orcutt lovegrass red sprangletop signalgrass southwestern cupgrass Texas panicum wild oats witchgrass

XL 2GR provides partial control of the following weeds, depending on soil and weather conditions:

Broadleaf Weeds

annual sowthistle black mustard black nightshade climbing milkweed common mallow common ragweed horseweed ladysthumb

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<u>Weed Grasses</u> morningglory prickly lettuce smartweed spotted spurge teaweed (prickly sida) velvetleaf volunteer wheat wild mustard

WHERE CAN I USE XL 2GR?

Apply XL 2GR over the top of ESTABLISHED shrubs, flowers, ground covers, bulbs, and warm season gracses. ESTABLISHED plants are those that have been transplanted into their final growing location and have the soil firmly settled around the roots from packing and rainfall or irrigation. To determine if it is permitted to apply XL 2GR over the top of any specific plant, refer to the "List of Tolerant Plants" located near the end of this label. In areas treated with XL 2GR, plant only ornamental species listed on the label for a period of one year following application or injury may occur.

Note: If you will be transplanting plants into previously treated areas, untreated soil should be used to backfill such plants, or injury may occur.

Do not apply XL 2GR in ornamental plantings where the herbicide may runoff onto lawn areas containing dichondra or cool season turfgrasses. XL 2GR can cause severe injury or death in these plants.

Always read and follow the label directions when applying XL 2GR.

WHEN TO APPLY XL 2GR

XL 2GR stops weeds during germination. IT WILL NOT KILL ESTABLISHED WEEDS. Proper timing of application is important for best results. To be effective, XL 2GR must be applied before the weeds emerge.

In ornamental flower and shrub beds

For bast results, apply XL 2GR as soon as possible after tilling, killing or pulling existing weeds from bed area. Since many weeds germinate in the spring, an application in early spring prior to the germination of annual broadleaf weeds and weed grasses is ideal (consult your extension agent or master gardener for the proper time to treat in your area). In warm climates with long groving seasons, a second application may be required 6 to 8 months after the first application to extend effective control.



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Over the top of ornamental bulbs

Apply XL 2GR to the soil surface in the fall 2 to 4 weeks after planting of bulbs, but before annual weeds begin to sprout. Apply XL 2GR again in late winter or early spring. Before applying, remove any existing weeds from bed area. In the spring, do not apply to tulip plants that have grown to a height greater than 3/4". If you will be transplanting plants listed on this label into previously treated beds, use untreated soil to backfill such plants, or injury may occur. Otherwise, wait one year and cultivate deeply prior to planting other plants following use of XL 2GR.

In warm-season turfgrasses such as: tall fescue, bermudagrass, St. Augustinegrass, centipedegrass, zoysiagrass, buffalograss or bahiagrass

For maximum effectiveness, apply prior to the germination of broadleaf weeds and grass weeds (consult your extension agent for the proper time in your area). Apply in late winter to prevent emergence of spring germinating weeds, early spring to prevent summer annual weed grasses and broadleaf weeds, and late summer or early fall to prevent emergence of annual bluegrass and broadleaf winter annuals. If you miss the initial application period, partial control can still be achieved by using XL 2GR later than the optimal time since weeds and weed grasses continue to sprout throughout the growing season. Be sure to kill or pull all existing weeds prior to applying XL 2GR because XL 2GR will not control established weeds. In warm climates with long growing seasons, a second application may be required 4 to 6 months after the first application to extend control.

Turfgrass Precautions:

- XL 2GR should not be applied in the spring to turfgrass planted the previous fall.
- In bermudagrass areas that have been over-seeded with winter grasses, a spring application of XL 2GR may thin the overseeded grasses.
- XL 2GR should not be used on dichondra.
- XL 2GR should not be applied to newly sprigged areas of bermudagrass, St. Augustinegrass, centipedegrass, or zoysiagrass until these turfs are well established.
- Do not use on turf type tall fescue in spring and summer following fall seeding.
- Do not apply XL 2GR in late summer or early fall to areas where fall overseeding will occur.
- Wait at least six weeks after application of XL 2GR to reseed turfgrasses. When using XL 2GR at the highest rate, delay reseeding for 12 to 16 weeks following application.
- For jatisfactory reseeding results, increase the amount of seed used and use equipment designed to place seed in contact with the soil.

HOW TO APPLY XL 2GR

Read and follow all instructions for the application equipment. Always calibrate equipment according to the manufacturer's directions before applying.

On ornamental tree and shrub and flower beds

Before applying XL 2GR, make sure shrub beds are free of established weeds. Remove weed residues, prunings, and trash. Remove or break up large soil clods. Apply XL 2GR evenly over the shrub or bedding area using equipment designed to apply granular herbicides or insecticides (such as a rotary spreader). Read and follow all instructions for the application equipment. Always calibrate equipment according to the manufacturer's directions before applying. During application, check frequently to be sure equipment is working properly and distributing granules uniformly. For a more uniform application, spread one-half the desired amount over the area in one direction, then apply the remaining half at right angles to the first. For optimum weed control performance, thoroughly water in XL 2GR within a few hours after application.

On tall fescue, bermudagrass, St. Augustinegrass, centipedegrass, zoysiagrass, buffalograss and bahiagrass lawns

Apply XL 2GR to established turf before germination of target weeds since XL 2GR will not control established weeds. Apply XL 2GR evenly over the turfgrass area using a rotary spreader or other equipment used to apply granular herbicides or insecticides. Calibrate equipment according to the manufacturer's directions before applying. During application, check frequently to be sure equipment is working properly and distributing granules uniformly. For a more uniform application, spread one-half the desired amount over the area in one direction, then apply the remaining half at right angles to the first. For optimum weed control performance, thoroughly water in XL 2GR within a few hours after application.

HOW MUCH XL 2GR SHOULD BE APPLIED?

Use the charts below to determine how much XL 2GR to apply: Over-application may result in plant injury or excessive soil residue.

Ornamental shrubs and beds:

For 3 to 4 month control	For 6 to 8 month control
4 1/2 lb/1000 sq ft	7 lb/1000 sq ft

Ornamental bulb beds:

Soil Texture	Time of Application	Amount of XL 2GR
Coarse Medium/Fine	Fall Fall Fab (March	1 3/4 lb/1000 sq ft 3 1/2 lb/1000 sq ft 1 3/4 lb/1000 sq ft
All soils	Feb./March	1 3/4 10/1000 84 1

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Turfgrass:

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Type of weed	Time of Application	Amount of XL 2GR [†]
Spring germinating	Late winter	2 1/2 to 3 1/2 lb / 1000 sq ft
Summer annual grass- weeds and broadleaf weeds	early spring	3 1/2 lb / 1000 sq ft
Annual bluegrass (<i>Poa annua</i>) and broadleaf winter annuals	Late summer/early fail	3 1/2 lb / 1000 sq ft

TXL 2GR may thin established annual bluegrass (Poa annua) turfs and fine-leafed fescues at rates above 2 1/2 lb/1000 sq ft

Helpful Application Techniques for XL 2GR

On Ornamental Shrub Beds:

- Handheld rotary applicators are ideal for broadcast applying XL 2GR. The rate of application depends on the gauge setting, walking speed of the operator and the speed of turning the crank. Walk and turn the crank at a constant rate of speed.
- 2. For hard to reach, small areas, a small container with holes punched in the bottom makes an excellent shaker type applicator.
- 3. On large areas, the push-type propelled rotary applicator does a fine job.
- 4. Optimum weed control performance will be obtained if XL 2GR is watered in to the soil within a few hours after application.

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On Turfgrass:

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 Small area application is easy using a small rotary applicator. To insure proper coverage and avoid missed areas, early morning treatment when wheel tracks are evident in the dew and the wind is calm is ideal.

Spreader Settings:

[Editor's note: Subregistrant may include spreader settings for recommended equipment.]

List of Tolerant Plants

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Do not apply to Begonia, Coleus, Slender Deutzia, Douglas Fir, Techny Arborvitae and Eastern Hemlock as injury may occur.

The following ESTABLISHED plants are tolerant to applications of XL 2GR.

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Established Flowers

Aster, Stokes Baby's Breath Bird Of Paradise Blazing Star Bleeding Heart Caladium, Fancy Leafed Chrysanthemum Coneflower, Purple Coreopsis Daisy, Gloriosa (Black-Eyed Susan) Daisy, Painted Daisy, Shasta Geranium Geum Gladiolus Impatiens (Busy Lizzie) Iris, Bearded Marigold Marigold, Cape Moss, Rose Pansy Petunia Ranunculus, Persian Rose

Sage Snapdragon Sweet William Yarrow Zinnia, Common

Established Ornamental Shrubs

Abelia, Glossy Acacia, Prostrate Agave Andromeda Arborvitae, American Arborvitae, Aureus Nana-Dwarf Golden Arborvitae, Emerald Arborvitae, Globosa-Globe Arborvitae, Little Giant-Dwarf Arborvitae, Minima Glauca-Dwart Arborvitae, Nigra-Dark American Arborvitae, Oriental Arborvitae, Pyramidal s Arborvitae, Rheingold... Arborvitae, Woodwarcii Azalea Bamboo, Compacta-Dwarf Heavenly Bamboo, Harbour Dwarf-Heavenly

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Bamboo, Heavenly Bamboo, Nana Compacta-Heavenly Bamboo, Nana Purpurea-Heavenly Bamboo, Woods Dwarf-Heavenly Barberry, Atropurea-Redleaf Japanese Barberry, Aurea-Golden Japanese Barberry, Crimson Pygmy Bottlebrush, Lemon Bougainvillea, Barbara Karst Bougainvillea, California Gold Bougainvillea, Scarlet O'hara Bougainvillea, Texas Dawn Boxwood, Common Boxwood, Japonica-Japanese Boxwood, Littleleaf **Bridal Wreath** Broom, Hollandia-Warminster Broom, Lena-Scotch Cactus, Easter Cherry, Brush Cinquefoil Cleyera, Japanese Cotoneaster, Bearberry Cotoneaster, Brightbead Cotoneaster, Cranberry Cotoneaster, Himalayan Cotoneaster, Parney Cotoneaster, Praecox-Early Cotoneaster, Pyrenees Cotoneaster, Rock Cotoneaster, Rockspray Coyctebush Cranberry Bush, Compactum-Dwarf Crape Myrtle Cryptomeria, Japanese Cypress, Filifera-Thread Cypress, Kosteri Cypress, Squarrosa Minima-Dwarf Moss Deutzia, Nakiana-Dwarf Dogwood, Faiviramea-Yellowtwig Dogwood, Flowering Dogwood, Kousa Dogwood, Sibirica-Siberian **Dwarf Burning Bush** Escallonia Euonymus, Canadale Gold Euonymus, Emerald'n Gold Euonymus, Evergreen

Euonymus, Silver King Euonymus, Spreading Euonymus, Stringybark Euonymus, Sunspot Euonymus, Winged Fatshedera Firethorn, Formosa Firethorn. Scarlet Flame Azalea Forsythia Gardenia Grape, Oregon Hawthorn, India Hibiscus, Chinese Hibiscus, Ross Estey Holly, Balkans Holly, Blue Boy Holly, Blue Girl Holly, Chinese Holly, Compacta-Dwarf Japanese Holly, Convexa Holly, Dwarf Chinese Holly, Ebony Magic Holly, English Holly, Gold Coast Holly, Helleri-Heller's Japanese Holly, Japanese Holly, Nana-Dwarf Yaupon Holly, Nordica-Inkberry Holly, Pendula-Weeping Yaupon Holly, San Jose Holly, Yaupon Honeysuckle, Mexican Honeysuckle, Trumpet Honeysuckle, Winter Hopseed Bush Jasmine, Chinese Star Juniper Leucothoe, Coast Leucothoe, Drooping Lilac Lilac, Wild Lily-Of-The-Valley Lily-Of-The-Valley, Tomple Bells Lily-Of-The-Valley, Valley Rose Manzanita, Stanford Mockorange Myoporum, Prostrate Myrtle, True

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Oleander Oleander, Hardy Red Oleander, Ruby Lace Osmanthus, Holly-Leaf Palm, Areca Palm, Chinese Fountain Palm, Christmas Palm, Pigmy Date Photinia, Fraser's Pittosporum Plant, Century Plumbago, Blue Cape Privet, Amur Privet, California Privet, Glossy Privet, Howardi Privet, Japanese Privet, Vicary Golden Privet, Wax Leaf Protea Pyracantha, Lolendei Monrovia Pyracantha, Monon Pyracantha, Rutgers Hybrid Pyracantha, Santa Cruz Pyracantha, Victory Pyrcantha, Red Elf Hybrid Rhaphiolepis, Enchantress-Moness Rhaphiolepis, Roundleaf Rhaphiolepis, Springtime-Monme Rose Of Sharon, Red Bird Rose Of Sharon, Red Heart Rose Of Sharon, Woodbridge Rose, Ramanas Rosemary Shrimp Plant Snowdrift Sotol, Desert Spoon Spiraea, False Spruce, Repens-Spreading Norway Spruce, Repens-Weeping Norway Spurge, Japanese St. Johnswort Sumac, African Viburnum Viburnum, Compactum-Spring Bouquet Viburnum, David Viburnum, Doublefile Viburnum, Eastern Snowball Viburnum, Laurustinus,

Viburnum, Sandankwa Viburnum, Tea Weigela, Bristol Ruby Weigela, Java Red Weigela, Minuet Wintercreeper Woadwaxen Woodbine, Flowering Woodbine, Serotina Xylosma Yew Yew, Japanese Yewpine Yucca, Pendulous Yucca, Soaptree,

Established Ground Covers

Bellflower Blue fescue Cape weed Carpet bugle Daisy, Trailing African Gazania Grass, Mondo Grass, Pampas Honeysuckle, Japanese ice plant ice plant, largeleaf Iceplant, Red Trailing Iceplant, Trailing rosea Iceplant, White Ivy, Algerian Ivy, English Jasmine, Chinese Star Periwinkle, Bigleaf Lily Turf, Big blue Lily Turf, Lilac Beauty Lily Turf, Majestic Lily Turf, Monroe white Lily Turf, Silvery Sunproof Lily Turf, Variegated liriope Lily Turf, White Lily, Day Lily, plantain Lily-of-the-Nile Periwinkle, Bigleaf Periwinkle, Dwarf St. Johnswort Stonecrop Trumpet Vine, Violet

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Established Trees Ash Birch, Paper Birch, River Birch, White Blue Palo Verde California Pepper Tree Carob Carrotwood. Cherry, Mahaleb Cherry, Yoshino Flowering Cottonwood Crabapple Cryptomeria, Japanese Cypress, Arizona Cypress, Filicoides-femspray Cypress, Gracilis-slender Hinoki Cypress, Italian Cypress, Lawson false Cypress, Sawara-false Cypress, Squarrosa-moss Dogwood, flowering Elm, Chinese Eucalyptus, Mealy Eucalyptus, Narrow-leaved Eucalyptus, Red gum Eucalyptus, Red ironbark Eucalyptus, Silver Dollar Ficus Fir. Alpine Fir, Balsam Fir, Fraser Fir, Grand Fir, Veitch Fir. White Goldenrain tree Gum. American sweet Laurel, California Laurelcherry, Carolina Laurelcherry, English Linden, Littleleaf Locust, Honey Magnolia, Southern Mahogany Maidenhair tree Maple, Albus Flowering Maple, Luteus flowering Maple, Roseus flowering

Maple, Tangerine flowering Maple, Vesuvius red flowering Maple Mountain Laurel Mulberry, White Oak Olive, Black Olive, Russian Olive Palm, Queen Palm. Cat Palm Palm, Parlor Palm. Mexican fan Pine Podocarpus Redbud Redcedar, Eastern Redcedar, Western Redwood, Coast Sequoia, Giant Spruce, Norway Spruce, Englemann Spruce, Conica-dwarf Alberta Spruce, White Spruce, Black Spruce, Glauca-Colorado blue Spruce, Hoopsii-Hoop's blue Spruce, Koster-Koster Blue Sycamore, American Sycamore, California Toyon Willow, Babylon weeping Willow, Corkscrew Yellow tab

Established Ornamental Bulbs bulbous iris

narcissus gladiolus daffodils tulips

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<u>Established Warm-Season</u> <u>Turfgrasses</u> tall fescue centipedegrass bahiagrass

bermudagrass buffalograss St Augustinegrass zoysiagrass

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

CAUTION

Causes Eye Irritation - Harmful if Swallowed, Inhaled, or Absorbed through the Skin

Avoid breathing dust and contact with skin, eyes, or clothing. Use eye protection and protective clothing such as coverails or long-sleeved shirt and long pants and impermeable gloves when handling this product. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reusing.

First Aid

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If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation develops.

If in eyes: Flush eyes with plenty of water. Get medical attention if irritation develops.

If Inhaled: If discomfort occurs, remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide cardiopulmonary resuscitation assistance (mouth-to-mouth) and call a physician.

Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

STORAGE AND DISPOSAL

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

Storage: Store in original container out of the reach of children and pets. In case of leak or spill, contain material and dispose of waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

[Editor's note: Subregistrant may insert their compary's Warranty Disclaimer and Inherent risk of use information/statements.]

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