

73220-5 11-7-2008

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ms. Jane Rothwell
Product Registration
Farmsaver .com LLC
4515 Falls of Neuse Rd, Suite 50 MC
Raleigh, NC 27609

NOV 7 2008

SUBJECT: Application for Pesticide Notification (PRN 98-10)
Request Primary Brand Name "Quali-Pro Oryzalin 4 Pro"
EPA Reg. No. 73220-5
Application Dated September 29, 2008

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 09/29/08 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

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United States
Environmental Protection Agency
 Washington, DC 20460.

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

| | | |
|--|--|---|
| 1. Company/Product Number 73220-5 | 2. EPA Product Manager Linda Arrington | 3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name) Nations Ag II Oryzalin 4 | PM# Registration Support Branch | |
| 5. Name and Address of Applicant (Include ZIP Code) Farmsaver.com LLC 4515 Falls of Neuse Rd., Suite 300 Raleigh, NC 27609 <input type="checkbox"/> Check if this is a new address | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: NOTIFICATION EPA Reg. No. _____ NOV 7 2007 Product Name _____ | |

Section - II

Amendment - Explain below. Final printed labels in response to Agency letter dated _____

Resubmission in response to Agency letter dated _____ "Me Too" Application.

Notification - Explain below. Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION OF: PRIMARY BRAND NAME: New Name: Quali-Pro Oryzalin 4 Pro. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula for this product. I understand that it is a violation of 18 USC Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

| | | | |
|--|---|--|--|
| Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | 2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____ |
| * Certification must be submitted | | If "Yes" Unit Packaging wgt. No. per container | If "Yes" Package wgt No. per container |

3. Location of Net Contents Information
 Label Container

4. Size(s) Retail Container

5. Location of Label Directions

6. Manner in Which Label is Affixed to Product
 Lithograph
 Paper glued
 Stenciled Other _____

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

| | | |
|-----------------------|----------------------------------|---|
| Name Jane Rothwell | Title Registration Specialist | Telephone No. (Include Area Code) 901-861-4400 |
|-----------------------|----------------------------------|---|

Certification
 I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received
 (Stamped)

| | |
|--------------------------------|-------------------------------------|
| 2. Signature | 3. Title Registration Specialist |
| 4. Typed Name Jane Rothwell | 5. Date 9-29-08 |

QUALI-PRO

Oryzalin 4 Pro

ACTIVE INGREDIENT:

Oryzalin: 3,5-dinitro-N⁺N⁻-dipropylsulfanilamide41.0%

INERT INGREDIENTS:59.0%

TOTAL:100.0%

Contains 4 pounds of active ingredient per gallon.

EPA Reg. No. 73220-5

EPA Est. No. 37429-GA-1

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

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

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

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

See inside booklet for complete Precautionary Statements, Directions for Use, and Conditions of Sale and Warranty.

Manufactured for
FarmSaver.com LLC
4515 Falls of Neuse Road, Suite 300
Raleigh, NC 27609

600-8-06

Net Contents: 2.5 Gallons (9.48 liters)

EPA 031402

NOTIFICATION

NOV 7 2007

02/h

**Quali-Pro
Oryzalin 4 Pro**

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

- Landscape Ornamentals
- Container Grown Ornamentals
- Field Grown Ornamentals
- Drainage Areas Under Shadehouse Benches
- Ornamental Bulbs
- Ground Covers/Perennials
- Christmas Tree Plantations
- Non-cropland and Industrial Sites
- Established Warm Season Turf (including Bahiagrass, Bermudagrass, Buffalograss, Centipedegrass, St. Augustinegrass and Zoysiagrass)
- Tall Fescue (warm season areas)
- Non-bearing fruit and nut trees and nonbearing vineyards

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Mixers and loaders must wear a chemical-resistant apron in addition to other PPE.

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

Engineering Controls Statements

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. **DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters. Cover or incorporate spills.

DIRECTIONS FOR USE

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

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 requirement in this box only applies to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

(continued on next page)

AGRICULTURAL USE REQUIREMENTS (cont.)

Workers may enter treated areas without required PPE during the reentry interval following 1/2 to 1 inch of rainfall or irrigation, if they are performing tasks that **DO NOT** involve contact with the soil subsurface; otherwise, PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

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

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.
Pesticide Storage: Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.
Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

Oryzalin 4 Pro herbicide is a preemergence surface-applied product for the control of many annual grasses and broadleaf weeds in ornamental plantings, bulbs, ground covers/perennials, established warm-season turfgrass, Christmas tree plantations, non-bearing trees and vines, and non-cropland and industrial sites.

Oryzalin 4 Pro is orange in color and may cause temporary discoloration of sprayed surfaces. If this discoloration is undesirable, it may be altered by using a commercially available colorant such as Blazon or removed by spraying surface with water or washing with an industrial cleaner immediately after application. Oryzalin 4 Pro may also be applied with

mulch colorants, such as Mulch Magic or Nu-Mulch.

Treatment of Plant Species Not Listed on the Label for Oryzalin 4 Pro
Users who wish to use Oryzalin 4 Pro on plant species not recommended on this label may determine the suitability for use by treating a small number of such plants at a recommended rate. Prior to treatment of larger areas, the treated plants should be observed for any sign of herbicidal injury during 30-60 days of normal growing conditions to determine if the treatment is non-injurious to the target plant species. The user assumes responsibility for any plant damage or other liability resulting from use of Oryzalin 4 Pro on plant species not recommended on this label.

Aerial Application

DO NOT aerially apply this product.

Chemigation

DO NOT apply this product through any type of irrigation system.

Grazing

DO NOT graze or feed forage from treated areas to livestock.

Precaution

Avoid spray drift to non-target areas when applying Oryzalin 4 Pro. Spray drift may result in reduced emergence of non-target plants adjacent to the treated area. Poor weed control may result if directions are not followed. Over-application may result in crop injury or excessive soil residue.

APPLICATION

Soil Preparation

Oryzalin 4 Pro controls weeds growing from seed. Oryzalin 4 Pro will not control emerged weeds. Oryzalin 4 Pro does not control established weeds, weeds growing from stolons, rhizomes, or root pieces. Therefore, areas to be treated should be free of emerged weeds. Weed residues, pruning, and trash should be thoroughly mixed into the soil or removed prior to treatment. In field applications, the soil should be in good tilth and free of clods at the time of application.

Ground Application

Apply Oryzalin 4 Pro as a directed spray to the soil surface or over the top of plants. Use only a properly calibrated, low-pressure, herbicide sprayer that will apply the spray uniformly. Use screens no finer than 50 mesh in nozzles and in-line strainers. Apply the appropriate rate of Oryzalin 4 Pro as outlined in **APPROVED USES** section of this label. In all cases, use sufficient water volume to obtain uniform coverage and deliver the desired rate of Oryzalin 4 Pro to the treated area. The vol-

ume of water used is not critical as long as the desired rate of Oryzalin 4 Pro is delivered uniformly across the area treated. When calibrating, determine the volume of water delivered by the sprayer to a given area (100 Sq ft, 1 acre, etc.). Then mix the desired rate of Oryzalin 4 Pro in the amount of water required to cover the entire area to be treated. As the amount of water used (spray volume) decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to ensure proper calibration and uniform application. Maintain continuous agitation from mixing through application. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application.

Hand Held or Backpack Sprayer Application

The amount of water used to apply Oryzalin 4 Pro herbicide is not critical, but should be sufficient for uniform coverage of the target area. Calibrate by determining the volume of water required to treat 1,000 square feet. Use this calibration volume to determine the amount of water and Oryzalin 4 Pro herbicide needed to treat the target area (see the following calibration example). **Note:** Sprayer calibration (volume of spray needed to treat 1,000 square feet) will vary with each individual operator.

Steps in Calibration

1. Mark an area of 1,000 square feet (i.e. 20 by 50 feet, or 25 by 40).
2. Place the sprayer on a level surface and add water noting the final level of water in the spray tank.
3. Spray the marked area with a sufficient volume of water to provide uniform coverage. Refill the sprayer to the same level as before measuring the amount of water added. The measured water added to the sprayer is the volume needed to cover 1,000 square feet.
4. Determine the application rate (fl oz/1000 sq ft) for Oryzalin 4 Pro from the **APPROVED USES** section of this label.
5. To each volume of water used, as measured in step 3, add the amount of Oryzalin 4 Pro as determined in step 4.

Example: If the sprayer used 2 gallons of water to cover 1,000 square feet and the desired application rate of Oryzalin 4 Pro is 3 fluid oz/1,000 square feet, then you would add 3 fluid ounces of Oryzalin 4 Pro to every 2 gallons of water to be used.

MIXING DIRECTIONS

Shake Well Before Using

Precaution

DO NOT allow the spray mixture to siphon back into water source.

Oryzalin 4 Pro-Alone

Make sure spray tank is clean and use only clean water. Fill spray tank 1/2 - 3/4 full. Start agitation and add the required amount of Oryzalin 4 Pro. Continue agitation and finish filling the spray tank. Maintain continuous agitation until application is completed.

Oryzalin 4 Pro-Tank Mix Combinations

Prior to mixing, read and carefully follow all label instructions and precautions for each product added to the tank mixture. Vigorous, continuous agitation is required for all tank mixes of Oryzalin 4 Pro. Sparger pipe agitators generally provide the best agitation in spray tanks.

Mixing Order: Fill the tank 3/4 full with clean water. Start agitation and add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products. Add different formulation types in the following order: dry flowables (DF); wettable powders (WP); Oryzalin 4 Pro and other aqueous suspensions (AS); flowables (F); liquids (L); solutions (S); and emulsifiable concentrates (EC).

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

Premixing: When tank mixing, initial mixing and dispersion of certain dry flowable or wettable powder products may be improved by premixing with water (slurrying). Adding the slurried material to the spray tank through a 20 or 35 mesh wetting screen will help assure good initial dispersion.

EQUIPMENT CLEANING

If a buildup of material occurs on the walls of the spray tank, it should be removed between fillings by washing with soap and water and rinsing thoroughly. Tanks, lines, screens, and nozzles should be cleaned thoroughly after each use.

ACTIVATION AND CULTIVATION

Oryzalin 4 Pro will remain stable on the soil surface up to 21 days following application. In the absence of timely rainfall, irrigation can be used to activate Oryzalin 4 Pro. A minimum of one-half (1/2) inch of rain or its equivalent in sprinkler irrigation is necessary to activate Oryzalin 4 Pro. If weeds begin to emerge due to lack of rainfall or irrigation, shallow cultivate 1-2 inches deep to destroy existing weeds, or remove them by

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hand. Shallow cultivation to a depth of 1-2 inches will enhance herbicidal effectiveness. If Oryzalin 4 Pro is not activated by rainfall, irrigation, or cultivation within 21 days of application, or existing weeds have not been removed, erratic weed control may result.

WEEDS CONTROLLED BY ORYZALIN 4 PRO

| Annual Grasses | Scientific Name |
|---|----------------------------|
| Common Name | |
| Barley, little | Hordeum pusillum |
| Barnyardgrass (watergrass) | Echinochloa crusgalli |
| Bluegrass, annual | Poa annua |
| Crabgrass, large | Digitalia sanguinalis |
| Crabgrass, smooth | Digitalia ischaemum |
| Crowfootgrass | Dactyloctenium aegyptium |
| Cupgrass, southwestern | Eriochloa gracilis |
| Foxtail, bristlegrass | Setaria magna |
| Foxtail, giant | Setaria faberi |
| Foxtail, green (pigeongrass) | Setaria viridis |
| Foxtail, robust | Setaria robusta |
| Foxtail, yellow | Setaria glauca |
| Goosegrass (silver crabgrass) | Eleusine indica |
| Johnsongrass (seeding only) | Sorghum halepense |
| Junglerice | Echinochloa colonum |
| Lovegrass, Mexican | Eragrostis mexicana |
| Lovegrass, orcutt | Eragrostis orcuttiana |
| Oat, wild | Avena fatua |
| Panicum, browntop | Panicum fasciculatum |
| Panicum, fall (spreading panicgrass) | Panicum dichotomiflorum |
| Panicum, Texas (buffalograss) | Panicum texanum |
| (Coloradograss) | |
| Ryegrass, Italian | Cenchrus incertus |
| Signalgrass (Brachiaria) | Brachiaria spp. |
| Sprangletop, red | Leptochloa filliformis |
| Witchgrass | Panicum capillare |
| Broadleaf Weeds | |
| Common Name | Scientific Name |
| Bittercress | Cardamine oligosperma |
| Carpetweed | Mollugo verticillata |
| Chickweed, common | Stellaria media |

| | |
|---|------------------------|
| Fiddleneck, coast | Amsinckia intermedia |
| Filaree, redstem | Erodium cicutarium |
| Filaree, whitestem | Erodium moschatum |
| Groundsel, common | Senecio vulgaris |
| Henbit | Lamium amplexicaule |
| Knotweed, prostrate | Polygonum aviculare |
| Lambsquarters | Chenopodium album |
| Pigweed, prostrate | Amaranthus blitoides |
| Pigweed, redroot | Amaranthus retroflexus |
| Pigweed, spring | Amaranthus hybridus |
| Pigweed, tumble | Amaranthus albus |
| Puncturevine | Tribulus terrestris |
| Purslane, common | Portulaca oleracea |
| Pulsey, Florida (Florida purslane) (Mexican clover) (pulsey) | Richardia scabra |
| Rocket, London | Sisymbrium irio |
| Rockpurslane, desert | Calandrinia ciliata |
| Shepherdspurse | Capsella bursapastoris |
| Spurge, prostrate | Euphorbia humistrata |
| Woodsorrel, yellow | Oxalis stricta |

WEEDS SUPRESSED BY ORYZALIN 4 PRO

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

| Common Name | Scientific Name |
|------------------------|--------------------------|
| Horseweed | Conyza canadensis |
| Ladysthumb | Polygonum persicaria |
| Lettuce, prickly | Lactuca serriola |
| Mallow, common | Malva neglecta |
| Milkweed, climbing | Sarcostemma cynanchoides |
| Morningglory | Ipomoea spp. |
| Mustard, black | Brassica nigra |
| Mustard, wild | Brassica kaber |
| Nightshade, black | Solanum nigrum |
| Ragweed, common | Ambrosia artemisiifolia |
| Smartweed | Polygonum pensylvanicum |
| Sowthistle, annual | Sonchus oleraceus |
| Spurge, spotted | Euphorbia maculata |
| Teaweed (prickly sida) | Sida spinosa |
| Velvetleaf | Abutilon theophrasti |
| Wheat, volunteer | Triticum spp. |

APPROVED USES

ORNAMENTAL PLANTINGS

Oryzalin 4 Pro is recommended for use on certain landscape container- and field-grown established ornamental plants including: trees, shrubs, ground covers/perennials, flowers, non-bearing fruit and nut trees, non-bearing vineyards, and in the production of ornamental bulbs (See ORNAMENTAL BULBS section for special use directions.)

Broadcast Application Rates

| Labeled Use Site | Length of Control | Oryzalin 4 Pro (qt/acre) | Oryzalin 4 Pro (fl oz/1000sq ft) | Minimum Time Between Applications (Months) | Total Amount Allowed Per Year (qt/acre) |
|---|-------------------|--------------------------|----------------------------------|--|---|
| Landscape Ornamentals | 2-4 months | 2 | 1.5 | 2 | 8 |
| | 3-6 months | 3 | 2.2 | 4 | 12 |
| | 4-8 months | 4 | 3 | 4 | 12 |
| Field-grown and container-grown ornamentals | 2-4 months | 2 | 1.5 | 3 | 8 |
| | 3-6 months | 3 | 2.2 | 3 | 9 |
| | 4-8 months | 4 | 3 | 3 | 12 |

Tank Mix Combinations

Tank mix combinations of Oryzalin 4 Pro plus Roundup/Glyphosate, and many other labeled herbicides may be used to control undesirable vegetation in ornamental areas. Oryzalin 4 Pro may also be tank mixed with Gallery herbicide and applied preemergence to broaden the spectrum of broadleaf weed control in ornamental areas. Applied as directed, these tank mixes of Oryzalin 4 Pro will provide control of susceptible weed species listed on the respective labels. Refer to tank mix product labels for specific use directions, precautions, and limitations before use.

Oryzalin 4 Pro Plus Roundup/Glyphosate: Tank mix combinations of Oryzalin 4 Pro plus Roundup are recommended to control existing undesirable vegetation. Applied as directed, Oryzalin 4 Pro plus Roundup will provide postemergence control of susceptible weed species listed on the label for Roundup and residual preemergence control of susceptible weed species listed on the label for Oryzalin 4 Pro. Refer to the label for Roundup for specific use directions, precautions, and limitations before use.

Precautions: DO NOT apply sprays containing Roundup over the top of ornamental plants. Extreme care must be exercised to prevent sprays containing Roundup from coming in contact with foliage and stems of tur-

grasses, trees, shrubs, or other desirable vegetation since severe damage or death may result. If spraying with Roundup in areas adjacent to desirable plants, use a shield to prevent spray from contacting foliage and stems of desirable plants.

Special Use Precautions

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

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

To avoid possible injury, DO NOT apply Oryzalin 4 Pro to:

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

On container grown ornamentals where weed seed germination continues for extended periods of time, DO NOT make repeat applications of Oryzalin 4 Pro for at least 90 days or crop injury may occur.

Application of Oryzalin 4 Pro over the top of plants with newly forming buds may cause injury. In this situation, a directed spray is recommended.

For soils treated with Oryzalin 4 Pro during the previous season, plant only the ornamental species listed on this label or injury may occur.

ICE PLANT

When establishing unrooted ice plant on coarse-textured soils in landscaping plantings, DO NOT exceed the 2 quart per acre rate of Oryzalin 4 Pro or crop injury may occur.

Note: Injury on the following plant species has been observed following applications of Oryzalin 4 Pro and use is not recommended.

- Deutzia gracilis* (slender deutzia)
- Pseudotsuga menziesii* (Douglas-fir)

Thuja occidentalis 'Techny' (Techny arborvitae)
 Tsuga canadensis (eastern hemlock)
 Begonia spp. (begonia)
 Coleus hybridus (coleus)

Oryzalin 4 Pro may be used on the following established plant species. (Note limitations on recommended treatment methods.)

TREES

| Scientific Name | Common Name | Recommended Treatment Method |
|--------------------------|---------------------------------|------------------------------|
| | | F = Field Grown |
| | | C = Container Grown |
| Abies balsamea | Fir, balsam | F |
| Abies concolor | Fir, white | F |
| Abies fraseri | Fir, fraser | F |
| Abies grandis | Fir, grand | F |
| Abies veitchii | Fir, Vietch | F |
| Abies lasiocarpa | Fir, alpine | F |
| Abutilon hybridum | Albus-flowering Maple | F |
| | Luteus-flowering maple | F |
| | Roseus-flowering maple | F |
| | Tangerine-flowering maple | F |
| | Vesuvius red-flowering maple | F |
| Acer ginnmala | Flame maple | F |
| Acer rubrum | Red sunset maple | F |
| Acer saccharinum | Silver maple | F |
| Acer spp. | Maple | F |
| Alsophila australis | Australian tree fern | C, F |
| Areacastrum | | |
| romanzoffianum | Queen palm | F |
| Betula nigra | Birch, river | F |
| Betula papyrifera | Paper birch | F |
| Betula pendula | Birch, white | F |
| Bucida buceras | Black olive | F |
| Carya spp. | Pecan, ornamental | C,F |
| Cedrus atlantica | Atlas cedar | C,F |
| Cedrus deodara | Deodar cedar | C,F |
| Ceratonia siliqua | Carob | F |
| Cercidium floridum | Palo Verde, blue | F |
| Cercis Canadensis | Redbud | C,F |
| Chamaecyparis lawsoniana | Falsecypress, Lawson | F |
| Chamaecyparis obtusa | Filicoides-fernspray cypress | F |
| | Gracilis-slender Hinoki cypress | F |

TREES (cont.)

| Scientific Name | Common Name | Recommended Treatment Method |
|------------------------------|---------------------------|------------------------------|
| | | F = Field Grown |
| | | C = Container Grown |
| Chamaecyparis pisifera | Sawara-false cypress | F |
| | Squarrosa-moss cypress | F |
| Chamaedorea cataractarum | Cat Palm | F |
| Chamaedorea costaricana | Palm | F |
| Chamaedorea elegans | parlor palm | F |
| Citrus spp. | Citrus, ornamental | C,F |
| Comus florida | Dogwood, flowering | F |
| Cryptomeria japonica | Cryptomeria, Japanese | C,F |
| Cupaniopsis anacardioides | Carrot Wood | F |
| Cupressus arizonica (glabra) | Cypress, Arizona | C,F |
| Cupressus glabra | Arizona cypress | C,F |
| Cupressocyparis leylandii | Leyland cypress | C,F |
| Cupressus sempervirens | Cypress, Italian | C,F |
| Dicksonia antarctica | Tasmanian tree fern | C,F |
| Elaeagnus angustifolia | Russian olive | C,F |
| Eucalyptus camaldulensis | Red gum eucalyptus | F |
| Eucalyptus cinerea | Eucalyptus, mealy | F |
| | Silver dollar eucalyptus | F |
| Eucalyptus nicholii | Eucalyptus, narrow-leaved | F |
| Eucalyptus sideroxylon | Eucalyptus, red ironbark | F |
| Ficus benjamina | Ficus | F |
| Fraxinus spp. | Ash | F |
| Ginkgo biloba | Ginkgo (Maidenhair tree) | C,F |
| Gleditsia triacanthos | Honey locust | F |
| Heteromeles arbutiflora | Toyon | F |
| Juniperus virginiana | Redcedar, Eastern | F |
| Koelreuteria paniculata | Goldenrain tree | F |

07/01

TREES (cont.)

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|-------------------------|--------------------------------|---|
| Liquidambar styraciflua | Sweetgum, American | C,F |
| Magnolia spp. | Magnolia | F |
| Malus spp. | Crabapple | F |
| Morus alba | White mulberry | F |
| Picea abies | Pendula-weeping Norway Spruce | F |
| | Repens-spreading Norway Spruce | F |
| | Spruce, Norway | F |
| Picea engelmannii | Spruce, Englemann | F |
| Picea glauca | Spruce, white | F |
| | Conica-dwarf Alberta spruce | F |
| Picea glauca conica | Dwarf Alberta spruce | F |
| Picea mariana | Spruce, black | F |
| Picea pungens | Glauca-Colorado blue spruce | F |
| | Hoopsii-Hoop's blue spruce | F |
| | Koster-Koster blue spruce | F |
| | Spruce, Colorado | C,F |
| Pinus aristata | Bristlecone pine | F |
| Pinus canariensis | Canary Island pine | F |
| Pinus contorta | Shore pine, beach pine | F |
| Pinus eldarica | Eldarica pine | F |
| Pinus halepensis | Aleppo pine | C,F |
| Pinus radiata | Monterey pine | F |
| Pinus spp. | Pine | C,F |
| Pinus strobus | Eastern white pine | F |
| Pinus sylvestris | Scotch pine | F |
| Pinus thunbergiana | Japanese black pine | F |
| Platanus occidentalis | American sycamore | F |
| Platanus racemosa | California sycamore | F |
| Podocarpus spp. | Podocarpus | F |
| Populus deltoides | Cottonwood | F |
| | Cottonwood (grown for pulp) | F |
| Prunus caroliniana | Laurelcherry, Carolina | F |
| Prunus glandulosa | Dwarf flowering almond | C,F |
| Prunus laurocerasus | Laurelcherry, English | F |
| Prunus mahaleb | Cherry, Mahaleb | F |
| Prunus yedoensis | Yoshino flowering cherry | F |
| Pyrus communis | Pear | F |
| Quercus palustris | Pin oak | F |

TREES (cont.)

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|--------------------------|------------------------|---|
| Quercus phellos | Willow oak | F |
| Quercus rubra | Red oak | C,F |
| Quercus spp. | Oak | C,F |
| Salix babytonica | Babylon weeping willow | F |
| | Corkscrew willow | F |
| Schinus molle | California pepper tree | F |
| Sequoia sempervirens | Redwood, coast | F |
| Sequoiadendron giganteum | Giant sequoia | F |
| Swietenia mahogani | Mahogany | F |
| Tabebuia caraiba | Yellow Tab | F |
| Tilia cordata | Linden, little leaf | C,F |
| Ulmus parvifolia | Chinese elm | F |
| Umbellularia californica | California laurel | F |
| Washingtonia robusta | Mexican fan palm | F |

SHRUBS

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|-----------------------------|----------------------|---|
| Abelia grandiflora | Glossy abelia | F |
| Acacia redolens | Acacia, prostrate | F |
| Agave Americana | Century plant | F |
| Agave macrocarpis | Agave | F |
| Anisodonteia hypomandarum | Cape mallow | C,F |
| Arctostaphylos stanfordiana | Manzanita, Stanford | F |
| Astilbe chinensis | Astilbe/false spirea | C,F |
| Baccharis pilularis | Coyotebush | F |

SHRUBS (cont.)

| Scientific Name | Common Name | Recommended Treatment Method F = Field Grown C = Container Grown |
|-----------------------------|-------------------------------|---|
| Berberis thunbergii | Aurea-golden | |
| | Japanese barberry | C,F |
| | Crimson pygmy barberry | C,F |
| | Atropurea-redleaf | |
| | Japanese barberry | C,F |
| | Barberry, Japanese | C,F |
| Bougainvillea spp. | Barbara Karst | F |
| | California gold | F |
| | Scarlet O'Hara | F |
| | Texas Dawn | F |
| Buxus microphylla | Littleleaf boxwood | F |
| Buxus microphylla japonica | Boxwood, Japanese | C,F |
| Buxus sempervirens | Boxwood, common | C,F |
| Callisternon citrinus | Bottlebrush, lemon | C,F |
| Cassia artemisioides | Cassia, feathery | F |
| Ceanothus americanus | Jerseytea, redroot | C,F |
| Ceanothus spp. | Wild lilac | C,F |
| Chaenomeles japonica | Flowering quince | C,F |
| Chamaecyparis obtusa | Kosteri cypress | F |
| | Nana-dwarf Hinoki cypress | F |
| | Torulosa cypress | F |
| Chamaecyparis pisifera | Squarrosa Minima cypress | F |
| Chamaecyparis pisifera spp. | Filifera-thread cypress | F |
| Chrysalidocarpus lutescens | Areca palm | F |
| Cleyera japonica | Cleyera, Japanese | C,F |
| Coleonema pulchrum | Pink breath of heaven | C,F |
| Comus alba | Sibirica-Siberian dogwood | F |
| Comus kousa | Dogwood, kousa | C,F |
| Comus stolonifera | Flaviramea-yellowtwig dogwood | F |
| Cotoneaster adpressus | Praecox-early cotoneaster | F |
| Cotoneaster apiculatus | Cotoneaster, cranberry | C,F |

SHRUBS (cont.)

| Scientific Name | Common Name | Recommended Treatment Method F = Field Grown C = Container Grown |
|--------------------------|----------------------------|---|
| Cotoneaster buxifolius | Cotoneaster, brightbead | F |
| Cotoneaster congestus | Cotoneaster, Pyrenees | F |
| Cotoneaster dammeri | Cotoneaster, bearberry | C,F |
| Cotoneaster himalayana | Himalayan cotoneaster | F |
| Cotoneaster horizontalis | Cotoneaster, rock | C,F |
| Cotoneaster lacteus | Cotoneaster, parney | C,F |
| Cotoneaster microphyllus | Cotoneaster, rockspray | F |
| Cotoneaster salicifolia | Willowleaf cotoneaster | C,F |
| Cytisus praecox | Hollandia-warminster broom | F |
| Cytisus scoparius | Lena-Scotch broom | F |
| Dasyliirion wheeleri | Sotol, desert spoon | F |
| Deutzia crenata | Nakiana-dwarf deutzia | F |
| Dodonaea viscosa | Hopseedbush, clammy | F |
| | Hopseed bush | F |
| Escallonia exoniensis | Escallonia | C,F |
| Euonymus alata | Euonymus, winged | F |
| Euonymus fortunei | Canadale gold euonymus | C,F |
| | Emerald'n gold euonymus | C,F |
| | Euonymus, stringybark | C,F |
| | Wintercreeper | C,F |
| Euonymus japonica | Euonymus, evergreen | C,F |
| | Silver king euonymus | F |
| Euonymus kiatschovica | Spreading euonymus | F |
| Euonymus vegetus | Bigleaf wintercreeper | C,F |
| Fatsyhedera lizei | Fatsyhedera | C,F |
| Fatsia japonica | Japanese aralia | C,F |
| Felicia amelloides | Blue marguerite | C,F |
| Forsythia intermedia | Forsythia, border | F |

SHRUBS (cont.)

| Scientific Name | Common Name | Recommended Treatment Method F = Field Grown C = Container Grown |
|------------------------|------------------------------------|---|
| Gardenia jasminoides | Gardenia | C,F |
| Genista pilosa | Woodwaxen | F |
| Hibiscus rosasinesis | Ross Estey-hibiscus | F |
| Hibiscus, Chinese | | F |
| Hibiscus syriacus | Rose of Sharon, Red Bird | F |
| | Rose of Sharon, Red Heart | F |
| | Rose of Sharon, Woodbridge | F |
| | Rose of Sharon (Shrubalthea) | F |
| Ilex aquifolium | Balkans holly | F |
| | Gold coast holly | F |
| | Holly, English | F |
| Ilex aquipemyi | San Jose holly | C,F |
| Ilex cornuta | Dwarf Burford holly | C,F |
| | Holly, Chinese | C,F |
| Ilex crenata | Compacta-dwarf Japanese holly | C,F |
| | Convexa holly | C,F |
| | Helleri-Heller's Japanese holly | C,F |
| | Holly, Japanese | C,F |
| Ilex glabra | Nordica-inkberry holly | F |
| Ilex meserveae | Blue boy holly | F |
| | Blue girl holly | F |
| | Ebony magic holly | F |
| Ilex vomitoria | Nana-dwarf yaupon holly | C,F |
| | Pendula-weeping yaupon holly | C,F |
| | Yaupon holly | C,F |
| Juniperus chinensis | Media-old gold juniper | C,F |
| Juniperus conferta | Emerald sea shore juniper | F |
| Juniperus horizontalis | Huntington blue juniper | C,F |
| | Wiltonii-blue carpet juniper | C,F |
| Juniperus procumbens | Naha-dwarf Japanese garden juniper | C,F |
| Juniperus prostrata | Prostrata juniper | C,F |
| Juniperus sabina | Broadmoor juniper | F |
| | Foemina-Hicks juniper | F |
| | Tamariscifolia-Tam juniper | F |
| Juniperus scopulorum | Emerald green juniper | F |

SHRUBS (cont.)

| Scientific Name | Common Name | Recommended Treatment Method F = Field Grown C = Container Grown |
|-------------------------|-----------------------|---|
| Juniperus spp. | Juniper | C,F |
| Juniperus squamata | Blue juniper | F |
| | Blue star juniper | F |
| | Parsonii juniper | F |
| Justicia brandegeana | Shrimp plant | C,F |
| Jusiticia spicigera | Honeysuckle, Mexican | F |
| Kalmia latifolia | Laurel, mountain | F |
| Lagerstroemia indica | Crape myrtle | C,F |
| Lavandula angustifolia | English lavender | C,F |
| Leucothoe axillaris | Leucothoe, coast | F |
| Leucothoe fontanesiana | Leucothoe, drooping | F |
| Ligustrum amurense | Privet, amur | C,F |
| Ligustrum japonicum | Privet, Japanese | C,F |
| | Yellow tip ligustrum | C,F |
| Ligustrum lucidum | Privet, glossy | C,F |
| Ligustrum ovalifolium | California privet | F |
| Ligustrum texanum | Howardi privet | F |
| | Wax leaf privet | F |
| Ligustrum vicaryi | Privet, golden | C,F |
| | Vicary golden privet | C,F |
| Livistona chinensis | Chinese fountain palm | F |
| Lonicera fragrantissima | Winter honeysuckle | F |
| Lonicera periclymenum | Flowering woodbine | F |
| | Serotina woodbine | F |
| Lonicera sempervirens | Trumpet honeysuckle | F |
| Lorpetalum chinense | (No common name) | C,F |
| Mahonia aquifolium | Oregon grape | F |
| Myoporum parvifolium | Myoporum, prostrate | F |
| Myrtus communis | Myrtle, true | C,F |

SHRUBS (cont.)

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container Grown |
|---------------------------|--|---|
| Rhododendron impeditum | Rhododendron | F |
| Rhododendron indica | Formosa azalea Waucubusa azalea | C,F C,F |
| Rhododendron kerume | Coral bells azalea Hino crimson azalea Hino pink azalea Snow azalea | C,F C,F C,F C,F |
| Rhododendron maximum | Rhodie max (rosebay) | C,F |
| Rhododendron mucronulatum | Rhododendron | F |
| Rhododendron satuski | Gumpo pink azalea Higasa azalea | F F |
| Rhododendron spp. | Azalea Rhododendron | C,F C,F |
| Rhododendron spp. hybrids | Carror azalea Girard Roberta azalea Golden flare exbury azalea | C,F F F |
| Rhus lancea | Sumac, African | C,F |
| Rosa rugosa | Ramanas rose | F |
| Rosmarinus officinalis | Rosemary | F |
| Senecio cineraria | Dusty miller | C,F |
| Spiraea vanhouttei | Bridal wreath | F |
| Syringa vulgaris | Lilac, common | C,F |
| Syzygium paniculata | Brush cherry | C,F |
| Taxus cuspidate | Yew, Japanese | F |
| Taxus media | Yew | F |
| Thuja occidentalis | Arborvitae, American Emerald arborvitae Globosa-globe arborvitae Little giant—dwarf arborvitae Nigra-dark American arborvitae Pyramidalis arborvitae Rheingold arborvitae Woodwardii arborvitae | C,F F F F F F F F |

SHRUBS (cont.)

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container Grown |
|------------------------------|---|---|
| Thuja orientalis | Aureus nana-dwarf golden arborvitae | F F |
| Thuja plicata | Minima glauca-dwarf arborvitae Red Cedar, Western | F F |
| Trachelospermum jasminoides | Star jasmine, Chinese | F |
| Veitchia merrilli | Christmas palm | F |
| Viburnum carlesii | Koreanspice viburnum | C,F |
| Viburnum davidii | David viburnum | F |
| Viburnum japonicum | Viburnum | F |
| Viburnum judd (V x Judii) | Viburnum | C,F |
| Viburnum opulus sterile | Common snowball viburnum | F |
| Viburnum plicatum tomentosum | Doublefile viburnum | F |
| Viburnum setigerum | Tea viburnum | F |
| Viburnum suspensum | Viburnum Sandankwa | F |
| Viburnum tinus | Viburnum Laurustinus Compactum-spring bouquet viburnum | C,F F F |
| Viburnum tinus compactum | Spring bouquet viburnum | F |
| Viburnum trilobum | Dwarf cranberry bush | F |
| Viburnum x pragense | Viburnum | F |
| Weigela florida | Bristol ruby weigela Java red weigela Minuet weigela Weigela, oldfashioned | F F F F |
| Xylosma congestum | Xylosma | F |
| Yucca elata | Yucca soaptree | C,F |
| Yucca recurvifolia | Yucca pendulous | F |

BT/HI

GROUNDCOVERS/PERENNIALS

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|---------------------------|----------------------------------|---|
| Agapanthus africanus | Lily-of-the-Nile | C,F |
| Ajuga spp. | Carpet bugle | F |
| Arctotheca calendula | Cape weed | F |
| Asparagus retrofractus | (No common name) | C,F |
| Asparagus varieegata | Tree fern | C,F |
| Aster novae-angliae | New England aster | C,F |
| Aster novi-belgii | New York aster | C,F |
| Athyrium nipponicum | Japanese painter fern | C,F |
| Brassica oleracea | Wild cabbage | C,F |
| Callistephus chinensis | China Aster | C,F |
| Campanula elatines | Bellflower | C,F |
| Carpobrotus edulis | Ice plant, largeleaf (see label) | F |
| Clytostoma callistegiodes | Trumpet vine, violet | C,F |
| Cortaderia selloana | Pampas grass | F |
| Cuphea hyssopifolia | False Mexican heather | C,F |
| Delosperma alba | White iceplant | F |
| Dietes vegeta | Fortnight lily | C,F |
| Digitalis mertonensis | Foxglove | C,F |
| Doronicum cordatum | Leopard's bane | C,F |
| Drosanthemum floribundum | Trailing rosea iceplant | F |
| Erianthus ravennae | Hardy pampus grass | C,F |
| Festuca ovina glauca | Blue fescue | F |
| Gaillardia grandiflora | Blanket flower | C,F |
| Gazania rigens leucolaena | Gazania, trailing | C,F |
| Gazania spp. | Gazania | F |
| Hedera canariensis | Ivy, Algerian | F |
| Hedera helix | Ivy, English | F |
| Heliotropium fragrans | Common heliotrope | C,F |
| Hemerocallis spp. | Daylily | C,F |

GROUNDCOVERS/PERENNIALS (cont.)

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|-------------------------------|------------------------------|---|
| Hosta lancifolia | Albo-marginata hosta | C,F |
| Hosta spp. | Lily, plantain | C,F |
| Heuchera micrantha | Coral bells | C,F |
| Hypericum spp. | St. Johnswort | C,F |
| Iberis sempervirens | Evergreen candytuft | C,F |
| Lampranthus spectabilis | Trailing iceplant | F |
| Leptospermum scaparium | New Zealand teatree/Manuka | C,F |
| Limonium perezii | Statice/Sea lavender | C,F |
| Liriope gigantea | White lily turf | F |
| Liriope muscari | Lilac beauty lily turf | C,F |
| | Majestic lily turf | C,F |
| | Monroe white lily turf | C,F |
| | Silvery sunproof lily turf | C,F |
| | Variegated liriope lily turf | C,F |
| | Big blue lily turf | C,F |
| Lobelia erinus | Edging lobelia | C,F |
| Lonicera japonica | Honeysuckle, Japanese | F |
| Mesembryanthemum crystallinum | Ice plant (see label) | F |
| Ophiopogon japonicus | Mondo grass | F |
| Osteospermum fruitocum | Daisy, trailing African | F |
| Pachysandra terminalis | Japanese spurge | F |
| Pennisetum setaceum | Fountaingrass | C,F |
| Polystichum polyblepharum | Tassel fern | C,F |
| Sedum brevifolium | Stoncrop | C,F |
| Sedum kamtschaticum | Stoncrop | C,F |
| Sedum spurium | Stoncrop, two row | C,F |
| Tulbaghia violacea | Society garlic | C,F |
| Verbena rigida | Veined verbena | C,F |
| Veronica spp. | Speedwell | C,F |
| Vinca major | Periwinkle, bigleaf | F |
| Vinca minor | Periwinkle, dwarf | F |

FLOWERS

| <u>Scientific Name</u> | <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|----------------------------|------------------------------------|---|
| Achillea spp. | Yarrow | C,F |
| Antirrhinum majus | Snapdragon | F |
| Caladium bicolor | Caladium, fancy leafed | F |
| Chrysanthemum spp. | Chrysanthemum | C,F |
| Coreopsis lanceolata | Coreopsis | F |
| Coreopsis verticulata | Threadleaf coreopsis | C,F |
| Dianthus barbatus | Sweet William | F |
| Dianthus gratianopolitanus | Cheddar pink | C,F |
| Dicentra spectabilis | Bleeding heart | C,F |
| Dimorphotheca spp. | Marigold, cape | F |
| Echinacea purpurea | Coneflower, purple | C,F |
| Evolvulus nuttallianus | Blue daze | C,F |
| Geum quellyon | Geum | F |
| Gladiolus hortulanus | Gladiolus | F |
| Gypsophila paniculata | Baby's breath | F |
| Impatiens wallerana | Impatiens (Busy lizzie) | F |
| Iris spp. | Iris, bearded | F |
| Liatris spicata | Blazing star | C,F |
| Pelargonium hortorum | Geranium | F |
| Petunia spp. | Petunia | C,F |
| Portulaca grandiflora | Moss, rose | F |
| Ranunculus asiaticus | Ranunculus, Persian | F |
| Rosa spp. | Rose | F |
| Rudbeckia fulgida | Blackeyed susan | C,F |
| Rudbeckia hirta | Daisy, gloriosa (black-eyed Susan) | F |
| Salvia spp. | Salvia (Sage) | F |
| Stokesia laevis | Aster, stokes | F |
| Strelitzia reginae | Bird of paradise | F |
| Tagetes spp. | Marigold | F |
| Viola wittrockiana | Pansy | F |
| Zinnia elegans | Zinnia, common | F |

NON-BEARING* TREES AND VINES

| <u>Common Name</u> | <u>Recommended Treatment Method</u> F = Field Grown C = Container <u>Grown</u> |
|--------------------|---|
| Almond | F |
| Apple | F |
| Apricot | F |
| Avocado | F |
| Blackberry | F |
| Blueberry | F |
| Boysenberry | F |
| Cherry, sour | F |
| Cherry, sweet | F |
| Currant | F |
| Dawberry | F |
| Elderberry | F |
| Fig | F |
| Filbert | F |
| Gooseberry | F |
| Grape, American | F |
| Grape, European | F |
| Grapefruit | F |
| Kiwi | F |
| Kumquat | C,F |
| Lemon | F |
| Loganberry | F |
| Macadamia nut | F |
| Nectarine | F |
| Olive | F |
| Orange | C,F |
| Peach | F |
| Pear | F |
| Pecan | C,F |
| Pistachio | F |
| Plum | F |
| Pomegranate | F |
| Prune | F |
| Raspberry | F |
| Walnut, black | F |
| Walnut, English | F |

*Non-bearing plants are defined as those that will not bear fruit for at least one year after treatment.

ORNAMENTAL BULBS

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

Broadcast Application Rates

| Time of Application | Soil Texture | Oryzalin 4 Pro (qt/acre) | Oryzalin 4 Pro (fl oz/1000sq ft) | Minimum Time Between Applications (Months) | Total Amount Allowed Per Year (qt/acre) |
|---------------------|-------------------|--------------------------|----------------------------------|--|---|
| Fall | Coarse | 0.75 | 0.5 | 3 | 1.5 |
| Fall | Medium and Fine | 1.5 | 1.0 | 3 | 2.25 |
| Feb-March | All Soil Textures | 0.75 | 0.5 | 3 | 2.25 |

Special Use Precautions

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

DO NOT apply to gladioli corms prior to emergence or less than one (1) inch in diameter.

SHADEHOUSE AREAS

Oryzalin 4 Pro may be applied to drainage areas under benches in open shadehouse-type structures where the natural flow of air is unimpeded. **DO NOT** apply in enclosed greenhouses or in enclosed shadehouse type structures. **DO NOT** apply within 3 weeks prior to enclosure of greenhouse or poly-type structures.

CHRISTMAS TREE PLANTATIONS

Oryzalin 4 Pro-Alone

Apply Oryzalin 4 Pro as a directed spray to the soil surface or as an overtop spray to established plantings of field grown Christmas tree species, including fir (*Abies* spp.), Pine (*Pinus* spp.), and spruce (*Picea* spp.). Follow all instructions provided in the **GENERAL INFORMATION** section of this label.

Broadcast Application Rates

| Length of control | Oryzalin 4 Pro (qt/acre) | Oryzalin 4 Pro (fl oz/1000sq ft) | Minimum Time Between Applications (Months) | Total Amount Allowed Per Year (qt/acre) |
|-------------------|--------------------------|----------------------------------|--|---|
| 2-4 months | 2 | 1.5 | 2 | 8 |
| 4-8 months | 4 | 3 | 2 | 8 |

Tank Mix Combinations

Tank mix combinations of Oryzalin 4 Pro plus other labeled herbicides may be used as directed sprays or overtop sprays in established Christmas tree plantings. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions, and limitations before use.

Oryzalin 4 Pro Plus Roundup/Glyphosate: Apply tank mix combinations of Oryzalin 4 Pro plus Roundup only as directed sprays in Christmas tree plantings. When applied according to use directions, Oryzalin 4 Pro plus Roundup will provide postemergence control of susceptible weed species listed on the label for Roundup and residual pre-emergence control of susceptible weed species listed on the label for Oryzalin 4 Pro. Refer to the label for Roundup for specific use directions, precautions, and limitations before use.

Special Use Precautions

DO NOT apply to Douglas-fir (*Pseudotsuga menziesii*). **DO NOT** apply to seedbeds or seedling transplant beds. Apply only to established plants that have been transplanted into their final growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation.

NON-CROPLAND AREAS AND INDUSTRIAL SITES

Non-cropland Areas—Tank Mix Combinations

Tank mix combinations of Oryzalin 4 Pro plus Roundup/Glyphosate and many other labeled herbicides may be used to control undesirable vegetation in non-cropland areas such as roadsides, rights-of-way, etc. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions, and limitations before use.

Broadcast Application Rates

| Length of control | Oryzalin 4 Pro (qt/acre) | Oryzalin 4 Pro (fl oz/1000sq ft) | Minimum Time Between Applications (Months) | Total Amount Allowed Per Year (qt/acre) |
|-------------------|--------------------------|----------------------------------|--|---|
| 2-4 months | 2 | 1.5 | 2 | 6 |
| 4-8 months | 4 | 3 | 4 | 12 |
| 8-12 months | 6 | 4.5 | 8 | 12 |

Industrial Sites—Tank Mix Combinations

Tank mix combinations of Oryzalin 4 Pro plus Roundup, Spike™ herbicide, and many other labeled herbicides may be used as overtop sprays to control existing vegetation on industrial sites such as utility substations, highway guard rails, sign posts, and delineators. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions, and limitations before use.

Warm Season Turfgrasses

Oryzalin 4 Pro may be applied as a preemergence treatment for control of annual grasses and certain broadleaf weeds in established warm season turf including bahiagrass, bermudagrass, buffalograss, centipedegrass, St. Augustinegrass, zoysiagrass, and established tall fescue growing in warm season areas. Established turf is defined as a dense turf having a well-anchored root system and healthy vigorous top growth. Use Oryzalin 4 Pro only as a part of a total turf management program that includes good fertilization practices.

Oryzalin 4 Pro may be tank mixed with Gallery herbicide and applied preemergence to broaden the spectrum of broadleaf weed control in warm season turf. Refer to the label for Gallery for specific use directions, precautions, and limitations before use.

Any cultural practices that disturb the soil, such as aerification or verticutting, should be done prior to application of Oryzalin 4 Pro.

Oryzalin 4 Pro will not control emerged weeds. Successful preemergence control of weeds listed on this label requires that Oryzalin 4 Pro be applied prior to weed germination and be activated by at least one-half (1/2) inch of rainfall or irrigation within 21 days of application.

Oryzalin 4 Pro may injure turf that is not well-established or is stressed or weakened due to unfavorable winter climatic conditions, drought, nematodes, or other factors which damage or weaken turf root systems. Apply Oryzalin 4 Pro only to healthy, well-established turf that has a well-

anchored root system.

DO NOT apply Oryzalin 4 Pro in the spring or early summer to tall fescue turfgrass reseeded the previous fall. In such cases, apply Balan™ 2.5G granular herbicide at 60-80 pounds per acre in early summer (Round 1) and Oryzalin 4 Pro at 1.5 quarts per acre approximately eight weeks later (Round 2). **DO NOT** apply Oryzalin 4 Pro at the single application rate (2 quarts per acre) to established tall fescue; in such cases, apply 1.5 quarts per acre of Oryzalin 4 Pro in an initial application, followed by a second application of 1.5 quarts per acre 8-10 weeks later.

In Bermudagrass areas that have been overseeded with winter grasses, a spring application of Oryzalin 4 Pro will thin the overseeded grasses.

Annual Grasses Controlled by Oryzalin 4 Pro Summer Annuals:

| Common Name | Scientific Name |
|-------------------------------|--------------------------|
| Barneygrass (watergrass) | Echinochloa crusgalli |
| Crabgrass, large | Digitaria sanguinalis |
| Crabgrass, smooth | Digitaria ischaemum |
| Crabgrass | Digitaria spp. |
| Crowfootgrass | Dactyloctenium aegyptium |
| Foxtail, bristlegass | Setaria magna |
| Foxtail, giant | Setaria faberi |
| Foxtail, green (pigeongrass) | Setaria viridis |
| Foxtail, robust | Setaria robusta |
| Foxtail, yellow | Setaria glauca |
| Goosegrass (silver crabgrass) | Eleusine indica |
| Johnsongrass (seedling only) | Sorghum halepense |
| Ryegrass, Italian | Lolium multiflorum |
| Sandbur, field | Cenchrus incertus |

Winter Annuals:

| Common Name | Scientific Name |
|-------------------|-----------------|
| Bluegrass, annual | Poa annua |

Annual Broadleaf Weeds Controlled by Oryzalin 4 Pro Summer Annuals:

| Common Name | Scientific Name |
|---------------------|----------------------|
| Carpetweed | Mollugo verticillata |
| Knotweed, prostrate | Polygonum aviculare |
| Purslane, common | Portulaca oleracea |

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Winter Annuals:

| | |
|--------------------|----------------------------|
| Common Name | Scientific Name |
| Chickweed, common | <i>Stellaria media</i> |
| Henbit | <i>Lamium amplexicaule</i> |

Broadleaf Weeds Suppressed by Oryzalin 4 Pro

| | |
|--------------------|-----------------------------|
| Common Name | Scientific Name |
| Groundsel, common | <i>Senecio vulgaris</i> |
| Spurge, prostrate | <i>Euphorbia humistrata</i> |
| Woodsorrel, yellow | <i>Oxalis stricta</i> |

Application Rates, Frequency, and Timing of Application

Oryzalin 4 Pro can be applied in the spring for summer annual grass and broadleaf weed control, and in the fall for annual bluegrass (*Poa annua*) and winter annual broadleaf weed control.

Broadcast Application Rates (Warm Season Turfgrasses)

| Use Area | Oryzalin 4 Pro (qt/acre) | Oryzalin 4 Pro (fl oz/1000sq ft) | Minimum Time Between Applications (Months) | Total Amount Allowed Per Year (qt/acre) |
|--------------------|--------------------------|----------------------------------|--|---|
| All except Florida | 1.5 to 2 | 1.5 to 1 | 3 | 6 |
| Florida | 1.5 | 1 | 3 | 4.5 |

1. Summer Annual Grasses and Broadleaf Weeds

Single Application Program: Apply 2 quarts per acre of Oryzalin 4 Pro in late winter or early spring, prior to the onset of conditions favorable for annual weed germination.

Split Application Program: As an alternative to a single application program, Oryzalin 4 Pro may be applied in a split application. This program is desirable when the initial application is made well in advance of weed germination and where weed control is desired for a longer period of time. Apply 1.5 quarts per acre of Oryzalin 4 Pro in an initial application, followed by a second application of 1.5 quarts per acre 8-10 weeks later.

The second treatment of the split application may follow application of a different preemergence grass herbicide in place of the initial application of Oryzalin 4 Pro.

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

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

Apply Oryzalin 4 Pro as a preemergence treatment in late summer or early fall, prior to the expected germination period for annual bluegrass and winter annual broadleaf weeds. If annual bluegrass infestation is severe and its elimination will result in thinning of turfgrass cover, apply Oryzalin 4 Pro at 1.5 quarts per acre. If thinning of turfgrasses cover is not a potential problem, Oryzalin 4 Pro may be applied at 2 quarts per acre.

Weed Control in Florida

In Florida, apply 1.5 quarts per acre of Oryzalin 4 Pro three times per year, or every 90 – 100 days in the fall, early spring, and early summer. **DO NOT** apply more than 1.5 quarts per acre of Oryzalin 4 Pro in any single application.

Application Equipment

Apply Oryzalin 4 Pro evenly over the turfgrass area. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application. For best results, use application equipment designed to uniformly broadcast liquid herbicides. Calibrate application equipment prior to use, according to manufacturer's directions. Check equipment frequently to make sure it is working properly and distributing spray uniformly.

Reseeding

Herbicides that control annual weeds may also affect establishment of desirable turfgrass seedlings. Reseeding should be delayed for at least 90-120 days following application of Oryzalin 4 Pro. When reseeding, it is essential that proper cultural practices such as soil cultivation and seedbed preparation, irrigation, and fertilization be followed. For satisfactory reseeding results following use of Oryzalin 4 Pro the seeding rate should be increased and equipment designed to place seed in full contact with soil (such as the Rogers Aero Seeder) should be employed.

Special Use Precautions

- To avoid possible injury, **DO NOT** apply Oryzalin 4 Pro to:
 - Cool season turfgrass species.
 - Golf course putting greens and tees or lawns containing *dichondra* or

- cool season turfgrass species.
- Newly sprigged or sodded areas of bermudagrass, St. Augustinegrass, centipedegrass, or zoysiagrass until these turfgrasses are well-established and have well-anchored root systems.
- Newly hydromulched areas of bermudagrass until such areas are well-established.
- Bermudagrass variety "Sun Turf" when tank mixed with atrazine.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

IMPORTANT: Read the information below before using this product. If the terms are not acceptable, you should return the unopened product container immediately for a complete refund.

**LIMITED WARRANTY, TERMS OF SALE,
AND LIMITATION OF LIABILITY**

Upon purchase or use of this product; purchaser and user agree to the following terms:

Warranty: FarmSaver.com, LLC (the "Company") warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. The Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose; no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. All such risks are assumed by the user.

Limitation of Liability: The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. Under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states **DO NOT** allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and

user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

Balan and Spike are trademarks of Dow AgroSciences, LLC.
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