

# Supplemental Labeling

### Goal® 2XL

EPA Reg. No. 92894-2-71368

24(c) Special Local Need Registration SLN SC-970001

## Use Directions for Application Via Sprinkler Irrigation For Weed Control in Conifer Seedbeds

(For Distribution and Use Only in the State of South Carolina)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This label must be in the possession of the user at the time of pesticide application.
- Read the label affixed to the container for Goal<sup>®</sup> 2XL herbicide before applying. Follow all other applicable directions, restrictions, and precautions on the EPA-registered label.
- Use of Goal 2XL according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Goal 2XL.
- Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty,
  Directions for Use, Use Restrictions, and Storage and Disposal Instructions. If the Conditions of Sale
  and Warranty are not acceptable, return the product unopened within thirty days of purchase to the
  place of purchase.

#### Directions for use

Goal 2XL is effective as a preemergence and/or postemergence herbicide for the control of certain annual grassy and broadleaf weeds in conifer seedbeds. The most effective postemergence weed control is achieved when Goal 2XL herbicide is applied to seedling weeds less than four inches in height. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Treated soil surfaces should not be disturbed as the herbicidal effectiveness of Goal 2XL may be decreased. Seedling weeds are controlled during emergence as they come in contact with the soil-applied herbicide.

**Important**: Some varieties or cultivars of conifers and ornamental species listed may be susceptible to Goal 2XL herbicide. Care should be taken to ensure that the particular variety to be sprayed with Goal 2XL herbicide is tolerant. It is suggested that unfamiliar species be tested in limited areas prior to application for preemergence and postemergence weed control.

#### **Weeds Controlled**

When Goal 2XL herbicide is applied preemergence or postemergence at recommended dosages and weed stages, the following grasses and broadleaf weeds are controlled:

Barnyardgrass\* Henbit Pigweed, Redroot
Bedstraw, Catchweed Jimsonweed Pimpernel, Scarlet
Bittercress, Lesser Knotweed, Prostrate Purslane, Common
Bluegrass, Annual\* Redmaids

Lambsquarters, Common\* Rocket, London Buckwheat, Wild Burclover Lettuce. Prickly Sandspurry, Red Carpetweed Mallow. Little Shepherdspurse\* Clover, Red\* Mayweed\*\* Sida, Prickly Clover, White\* Minerslettuce Smartweed. Pennsylvania Morningglory, Ivyleaf\* Sorrel, Red (From Seed) Cocklebur, Common Crabgrass, Large\* Morningglory, Tall\* Sowthistle, Annual Fiddleneck. Coast\* Mustard. Blue Speedwell, Birdseve Filaree, Broadleaf Mustard, Tumble Spurge, Prostrate\*\* Filaree, Redstem Mustard, Wild Spurge, Spotted\*\* Spurry, Corn\*\* Fireweed (From Seed) Nettle, Burning Nightshade, Black\*\* **Tansymustard** Flixweed Nightshade, Hairy Thistle, Bull\*\* Foxtail, Giant\* Goosegrass\* Oats. Wild Thistle. Russian\*\* Groundcherry, Cutleaf Velvetleaf Orach, Red

Groundcherry, Wright Pepperweed, Yellowflower Witchgrass

Groundsel, Common Pigweed, Prostrate Woodsorrel, Yellow\*\*

Goal 2XL herbicide is most effective when applied preemergence to annual grasses. Postemergence applications should be made to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% (2 pints/100 gallons of spray solution) of Latron AG-98 or comparable 80% active nonionic surfactant, cleared for application on growing crops, enhances the Goal 2XL herbicide activity on emerged weeds.

#### **Conifer Seedbeds**

To assist in the establishment of conifer seedbeds, a preemergence application should be made after seeding but prior to conifer emergence. Postemergence applications should not be made until a minimum of five weeks after emergence of the conifer seedlings. Additional care should be taken if cool, cloudy weather occurs during emergence to make certain that seedlings have hardened off prior to spraying.

Conifers are tolerant to preemergence and postemergence applications of Goal 2XL herbicide. Applied postemergence, Goal 2XL herbicide will provide both postemergence and residual preemergence control of many broadleaf weeds and annual grass species.

#### **Conifer Species**

Goal 2XL herbicide may be applied to conifer seedbeds of numerous species including the following:

Dauralac Eir	Dooudotouao mo	nzionii
Douglas-Fir	Pseudotsuga me	HZIESII

Fir

Fraser Abies fraseri
Grand Abies grandis
Noble Abies procera

Hemlock

Eastern Hemlock Tsuga canadensis Western Hemlock Tsuga heterophylla

Pine

Austrian Pinus nigra
Eastern White Pinus strobus
Himalayan Pinus wallichiana

<sup>\*\*</sup>Highest rate and/or multiple applications may be required for acceptable control.

<sup>\*\*</sup>Preemergence control only.

Pinus banksiana Jack Loblolly Pinus taeda Lodgepole Pinus contorta Longleaf Pinus palustris Monterev Pinus radiata Mugho Pinus mugo Ponderosa Pinus ponderosa Scotch Pinus sylvestris Shortleaf Pinus echinata Pinus elliottii Slash Virginia Pinus virginiana

Spruce

Blue Picea pungens
Dwarf Alberta Picea glauca Conica

Norway Picea abies Sitka Picea sitchensis

#### **Preemergence Dosage**

Apply 1 to 4 pints (0.25 to 1.0 lb. active) of Goal 2XL herbicide per broadcast acre as a preemergence application. Where grassy weeds are present, a minimum rate of 2 pints (0.5 lbs. active) of Goal 2XL herbicide per broadcast acre is suggested. In known areas of high weed competition, 4 pints (1.0 lb. active) of Goal 2XL herbicide per broadcast acre are recommended.

#### **Timing**

Apply recommended dosage after seeding but prior to conifer emergence.

#### **Postemergence Dosage**

Apply 1 to 2 pints (0.25 to 0.5 lbs. active) of Goal 2XL herbicide per broadcast acre with each postemergence application. Multiple postemergence applications may be necessary for season-long weed control.

#### **Timing**

Apply recommended dosage to seedbeds no sooner than five weeks after emergence of conifer seedlings. Additional care should be taken if cool, cloudy weather occurs during emergence to make certain that seedlings have hardened off prior to spraying. Application should be made to seedling weeds (less than four inches in height).

#### **Method of Application (Sprinkler Chemigation)**

For sprinkler irrigation (center pivot), sufficient water should be applied at the beginning of the irrigation period to insure uniform wetting of the plant and soil surfaces. Meter Goal 2XL herbicide at a continuous uniform rate during the entire irrigation period to allow for uniform distribution to the vegetation and soil surface. Continue irrigation at the end of the herbicide injection 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.

Apply Goal 2XL herbicide only through a sprinkler irrigation system (center pivot). Do not apply this product to conifer seedbeds through any other type of irrigation system.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop in excess of established tolerances can result from nonuniform distribution of treated water. If you should have questions about

calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices noted below 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.

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.

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

- Public water system 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 the 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 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, or in cases where there is no water pump, when the
  water pressure decreases to the point where pesticide distribution is adversely affected.

#### **Avoid Drift**

When applying to conifer seedbeds, extreme care must be exercised to prevent spray drift which could result in damage to other crops or desirable vegetation. Use of the following guidelines are suggested when applications of goal 2xl herbicide are to be made through the sprinkler irrigation system:

- 1. Do not apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.
- 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 for the following:
  - Maintain a minimum downwind buffer zone of:
    - 150 feet from dormant treefruit, dormant vines and overwintering sugarbeets.
    - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugarbeets 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.

#### **Cultural Considerations**

On mineral soils, in order to provide maximum preemergence activity, the soil surface should be smooth and free of excessive trash (clippings, dead weeds, etc.).

Cultural practices that result in redistribution or disturbance of the soil surface after spraying or that mix untreated soil in treated areas will reduce the effectiveness of the treatment. The best results from Goal 2XL herbicide are from applications on established beds that are left undisturbed during the time period for which weed control is desired.

#### **Conifer Specific Use Restrictions**

In addition to the following, also observe General Use Restrictions listed at the end of this label.

- Not for conifer release in forest management programs or for forest regeneration applications.
- Do not apply Goal 2XL herbicide 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 four irrigations (minimum 21 days) as injury to non-labeled plants may occur.
- Always apply Goal 2XL herbicide only to healthy conifer stock. Do not apply Goal 2XL herbicide 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.

#### **General Use Restrictions**

- Read and observe all label directions before using. When tank mixing, always read all individual
  manufacturers' labels. In interpresting all labels for the tank mixture, the most restrictive situations must
  apply.
- Do not contaminate irrigation water or water used for domestic purposes.
- Do not use any plants treated with Goal 2XL herbicide for feed or forage.
- Do not feed or allow animals to graze on any areas treated with Goal 2XL herbicide.
- Goal 2XL herbicide should be applied only by ground application equipment except as specifically directed on this label or on other approved Dow AgroSciences Supplemental Labeling.
- Do not apply when weather conditions favor drift. Avoid drift to all non-target areas. Goal 2XL herbicide is phytotoxic to plant foliage.
- Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residual Goal 2XL herbicide remaining in spray equipment may damage other crops. To assist removal of Goal 2XL herbicide residues in spray equipment, Latron AG-98™ or Latron CS-7™ may be added at the rate of 1 quart per 100 gallons of water during flushing.
- Use Goal 2XL herbicide only for recommended purposes and at recommended rates.
- Do not treat ditch banks or waterways with Goal 2XL herbicide.
- Chemigation: Do not apply this product through any type of irrigation system except as specified on other approved supplemental labeling.

#### • Rotation Crop Restrictions:

- Do not rotate to small-grain crops (including barley, buckwheat, corn, proso millet, pearl millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice) within 10 months following a Goal treatment.
- Do not direct seed any crops, other than Goal-labeled crops, within 60 days following a Goal treatment.
- Do not transplant seedling crops, other than Goal-labeled crops, within 30 days following a Goal treatment.

**Important**: Treated soil must be thoroughly incorporated 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 this thorough and complete incoprporation 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 regarding crop planting information for applications of Goal 2XL herbicide made to a fallow bed or fallow field.

Produced for: Nufarm Inc. 11901 S. Austin Avenue Alsip, IL 60803

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