

81927-8

3/26/2007

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

3-26-07

Michael Kellogg  
Alligare, LLC  
c/o Pyxis Regulatory Consulting, Inc.  
4110 136<sup>th</sup> St. NW  
Gig Harbor, WA 98332

Subject: EPA Reg. No. 81927-8 / Glyphosate 5.4

Dear Mr. Kellogg:

The supplemental labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

The revised basic CSF dated 2/28/2007 is acceptable.

A stamped copy of labeling is enclosed for your records. If you have any questions please call Erik Kraft at 703-308-9358.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Tompkins".

James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

### SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR GLYPHOSATE 5.4 BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for Glyphosate 5.4 and this supplement.

## Glyphosate 5.4

EPA Reg. No. 81927-8

**FOR APPLICATION TO CHRISTMAS TREES, SILVICULTURAL SITES AND UTILITY RIGHTS-OF-WAY, FORESTRY CONIFER AND HARDWOOD RELEASE, AND HERBACEOUS RELEASE**

ACCEPTED

3-26-07

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

81927-8

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This label must be in the possession of the user at the time of the herbicide application.

#### CHRISTMAS TREES

**TYPES OF APPLICATIONS:** Post-directed, spot treatment, site preparation

##### Post-directed, Spot treatment

**USE INSTRUCTIONS:** This product may be used as a post-directed spray and spot treatment around established Christmas trees.

**PRECAUTIONS, RESTRICTIONS:** Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established Christmas trees.

##### Site preparation

**USE INSTRUCTIONS:** This product may be used prior to planting Christmas trees.

**PRECAUTIONS, RESTRICTIONS:** Precautions should be taken to protect nontarget plants during site preparation applications.

#### SILVICULTURAL SITES AND UTILITY RIGHTS-OF-WAY

**TYPES OF APPLICATIONS:** This product is recommended for the control or partial control of woody brush, trees and herbaceous weeds. This product is labeled for use in forestry and utility sites. This product is also recommended for use in preparing or establishing wildlife openings within these sites and maintaining logging roads, and for side trimming along utility rights-of-way.

In forestry, this product is recommended for use in site preparation prior to planting any tree species, including Christmas trees and silvicultural nursery sites.

In utilities, this product is recommended for use along electrical power, pipeline and telephone rights-of-way, and in other utility sites associated with these rights-of-way, such as substations.

**APPLICATION RATES AND TIMING:**

| <b>Application</b>               | <b>Glyphosate 5.4</b> | <b>Spray Volume (Gal/A)</b> |
|----------------------------------|-----------------------|-----------------------------|
| <b>Broadcast</b>                 |                       |                             |
| Aerial                           | 1.5 to 7.5 qts./A     | 5 to 30                     |
| Ground                           | 1.5 to 7.5 qts./A     | 10 to 60                    |
| <b>Spray-to-Wet</b>              |                       |                             |
| Handgun, Backpack, Mistblower    | 0.6% to 2% by volume  | spray-to-wet                |
| <b>Low Volume Directed Spray</b> |                       |                             |
| Handgun, Backpack, Mistblower    | 4% to 7.5% by volume  | partial coverage*           |

\*For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results.

In forestry site preparation and utility rights-of-way applications, this product requires use with a nonionic surfactant. Use a nonionic surfactant with greater than 80 percent active ingredient and labeled for use with herbicides. Use of this product without surfactant will result in reduced performance. Refer to the "MIXING" section of the Glyphosate 5.4 label for more information.

Mix 2 or more quarts of the nonionic surfactant per 100 gallons of spray solution (0.5 percent or more by spray volume). Use of surfactant concentrations greater than 1.5 percent by spray volume with handgun applications or 2.5 percent by spray volume with broadcast applications is not recommended.

Use higher rates of this product within the recommended range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the recommended range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the recommended range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 8 quarts of this product per acre per year.

**Tank Mixtures**

Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of both products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any recommended rate of this product may be used in a tank mix.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions. For side trimming treatments in utility rights-of-way, tank mixtures with Arsenal® 2WSL are not recommended. For

side trimming treatments, it is recommended that this product be used alone as recommended, or as a tank mixture with Garlon® 4 or Triclopyr 4 EC.

| Product  | Broadcast Rate    | Use Sites                                |
|--|-------------------|--|
| Arsenal® Applicators Concentrate or Imazapyr 4 SL**      | 2 to 16 fl. oz./A | Forestry site preparation                |
| Chopper® or Rotary**                                     | 4 to 32 oz./A     | Forestry site preparation                |
| Escort®** or Metsulfuron Methyl DF**                     | ½ to 3 ½ oz./A    | Forestry site preparation                |
| Oust® or SFM 75  | 1 to 4 oz./A      | Forestry site preparation, Utility sites |
| Garlon® 3A*, Garlon® 4, Triclopyr 4 EC**, Triclopyr 3A** | 1 to 4 qts.       | Forestry site preparation, Utility sites |
| Arsenal® 2WSL**  | 4 to 32 fl. oz./A | Utility sites                            |

| Product   | Spray-to-Wet Rates      | Use Sites                 |
|---|-------------------------|---------------------------|
| Arsenal® Applicators Concentrate or Imazapyr 4 SL** | 1/32 % to ½ % by volume | Forestry site preparation |
| Arsenal® 2WSL**                                     | 1/16 % to ½ % by volume | Utility sites             |

| Product   | Low Volume Directed Spray Rates | Use Sites                 |
|---|---------------------------------|---------------------------|
| Arsenal® Applicators Concentrate or Imazapyr 4 SL** | 1/8 % to ½ % by volume          | Forestry site preparation |
| Arsenal® 2WSL**                                     | 1/8 % to ½ % by volume          | Utility sites             |

\*Ensure that Garlon® 3A (or Triclopyr 3A) are thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

\*\*Not registered in the state of California.

For control of herbaceous weeds, use the lower recommended tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher recommended rates.

**FORESTRY CONIFER AND HARDWOOD RELEASE**

**Directed Spray and Selective Equipment**

This product may be applied as a directed spray or by using selective equipment in forestry conifer and hardwood sites, including Christmas tree plantations and silvicultural nurseries. Mix 2 to 6 quarts of a nonionic surfactant per 100 gallons of spray solution (0.5 to 1.5 percent by spray volume) for all spray applications. Use a surfactant with greater than 80 percent active ingredient.

In hardwood plantations, tank mixtures with Oust® (or SFM 75) may be used. In pine plantations, tank mixtures with Garlon® 4 (or Triclopyr 4 EC) or Arsenal® AC (or Imazapyr 4 SL) may be used. Comply with all site restrictions, forestry species limitations and precautions on the tank mix product label.

Avoid contact of spray, drift, mist or drips with foliage, green bark or non-woody surface roots of desirable species.

See all sections in the "APPLICATION EQUIPMENT AND TECHNIQUES" portion of the Glyphosate 5.4 labeling for specific equipment recommendations and precautions.

For spray-to-wet applications, use a 1.5 percent spray solution for the control of undesirable woody brush and trees. To control herbaceous weeds, use a 0.75 to 1.5 percent solution.

For low volume directed spray applications, use a 4 to 7.5 percent spray solution. Coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the unwanted vegetation is important.

For equipment calibrated for broadcast applications, use 1.5 to 7.5 quarts of this product per acre. Apply in 10 to 60 gallons of clean water per acre. Shielded application equipment may be used to avoid contact of the spray solution with desirable plants. Shields should be adjusted to prevent spray contact with the foliage or green bark of desirable vegetation.

Wiper application equipment may be used. Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

For Rope or Sponge Wick Applicators – Mix 3 quarts of this product in 2 gallons of water to prepare a 25 percent solution. Apply this solution to weeds listed in this section.

For Porous-Plastic Applicators – Solutions ranging from 25 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

**Broadcast Spray**

Except where specifically recommended below, use only where conifers have been established for more than one year.

**Application must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in the spring.**

Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied. Damage can be accentuated if applications are made when conifers are actively growing, or are under stress from drought, flood water, improper planting, insects, animal damage or diseases.

This product may require use with a surfactant. Unless otherwise recommended in this section of this label, use Entry™ II surfactant at 10 to 30 fluid ounces per acre. Follow the instructions under the "MIXING AND APPLICATION INSTRUCTIONS" portion of Glyphosate 5.4 label.

**For release of the following conifer species outside the Southeastern United States:**

leaf 7

|  |   |
|--|---|
| <b>Douglas fir</b><br><i>Pseudotsuga menziesii</i> | <b>Pines*</b><br><i>Pinus spp.</i>                  |
| <b>Fir</b><br><i>Abies spp.</i>                    | <b>Redwood, California**</b><br><i>Sequoia spp.</i> |
| <b>Hemlock**</b><br><i>Tsuga spp.</i>              | <b>Spruce</b><br><i>Picea spp.</i>                  |

\*Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.

\*\*Use of a surfactant is not recommended for release of hemlock species or California redwood. In mixed conifer stands, injury to these species may result if a surfactant is used.

Apply 0.75 to 1.5 quarts of this product per acre as a broadcast spray.

**Note:** For release of Douglas fir with this product or recommended tank mixtures of this product, Entry™ II or a nonionic surfactant recommended for over-the-top foliar sprays may be used. To avoid possible conifer injury, Entry™ II rates should not exceed 20 fluid ounces per acre at elevations above 1500 feet, or 10 fluid ounces per acre in the coastal range or at elevations below 1500 feet in Washington and Oregon. Nonionic surfactants may be used at 2 fluid ounces per acre at elevations above 1500 feet, or 1 fluid ounce per acre in the coastal range or at elevations below 1500 feet. Use of surfactant rates exceeding those listed above may result in unacceptable conifer injury and are not recommended. Ensure that the nonionic surfactant has been adequately tested for Douglas fir safety before use.

In Maine, up to 2.25 quarts per acre of this product or a tank mix with 1 oz./A of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) may be used for the control of difficult species.

To release Douglas fir, pine and spruce species at the end of the first growing season (except in California), apply 0.75 to 1.125 quarts of this product per acre. Ensure that the conifers are well hardened off.

**Oust® (or SFM 75) Tank Mixtures** – To release jack pine, white pine and white spruce, apply 0.75 to 1.5 quarts of this product with 1 to 3 ounces (1 to 1.5 for white pine) of Oust® (or SFM 75) per acre. Make applications to actively growing weeds as a broadcast spray over the top of established conifers. Applications at these rates should be made after formation of conifer resting buds in the late summer or fall.

**Arsenal® Applicators Concentrate (or Imazapyr 4 SL) Tank Mixtures** – This product may be tank mixed with Arsenal® Applicators Concentrate (or Imazapyr 4 SL) for release of Douglas fir. Use 0.75 to 1.125 quarts of this product tank mixed with 2 to 6 fluid ounces of Arsenal® (or Imazapyr 4 SL) per acre. For release of balsam fir and red spruce, apply a mixture of 1.5 quarts of this product and 1 to 2.5 fluid ounces of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) per acre.

**For release of the following conifer species in the Southeastern United States:**

|   |   |
|---|---|
| <b>Eastern white pine</b><br><i>Pinus strobus</i> | <b>Shortleaf pine</b><br><i>Pinus echinata</i>  |
| <b>Loblolly pine</b><br><i>Pinus taeda</i>        | <b>Slash pine</b><br><i>Pinus elliottii</i>     |
| <b>Longleaf pine</b><br><i>Pinus palustris</i>    | <b>Virginia pine</b><br><i>Pinus virginiana</i> |

Apply 1.125 to 1.875 quarts of this product per acre as a broadcast spray during late summer or early fall after the conifers have hardened off. For applications at the end of the first growing season, use 0.75 quart per acre of this product alone or in a recommended tank mixture.

**Arsenal® Applicators Concentrate (or Imazapyr 4 SL) Tank Mixtures** – Apply 0.75 to 1.5 quarts of this product with 2 to 16 fluid ounces of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) per acre as a broadcast spray for conifer release. Use only on conifer species that are labeled for over-the-top sprays for both products. Use the higher recommended rates for dense, tough-to-control woody brush and trees.

Read and carefully observe the label claims, cautionary statements and all information on the labels of each product used in these tank mixtures. Use according to the most restrictive precautionary statements for each product in the mixture.

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**HERBACEOUS RELEASE**

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When applied as directed, this product plus listed residual herbicides provides postemergence control of the annual weeds and control or suppression of the perennial weeds listed in this label, and residual control of the weeds listed in the residual herbicide label. Make applications to actively growing weeds as a broadcast spray over the top of labeled conifers.

**Oust® (or SFM 75) Tank Mixtures** – To release loblolly pines, apply 12 to 18 fluid ounces of this product, plus 2 to 4 ounces of Oust® (or SFM 75) per acre. To release slash pines, apply 9 to 12 fluid ounces of this product, plus 2 to 4 ounces of Oust® (or SFM 75) per acre.

Mix up to 3.2 fluid ounces per acre of Entry™ II with the recommended rate of this product plus Oust® (or SFM 75). Applications can be made over newly planted pines after the emergence of herbaceous weeds in the spring or early summer. Best results are obtained from applications made in May and June.

Weed control may be reduced if water volumes exceed 25 gallons per acre for these treatments.

**Atrazine Tank Mixtures** – To release Douglas fir, apply 0.75 quart of this product, plus 4 pounds active ingredient of atrazine per acre. Apply only over Douglas fir that has been established for at least one full growing season. Apply in the early Spring, usually mid-March through early April. Injury will occur if applications are made after bud swell in the Spring. Do not add surfactant to this mix for this use.

Always read and follow the manufacturer's label recommendations for all herbicides and surfactants used.

Read the “**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**” in the label booklet for Glyphosate 5.4 before using.

Arsenal® and Chopper® are registered trademarks of BASF.  
Garlon® is a registered trademark of Dow AgroSciences.  
Escort® and Oust® are registered trademarks of E.I. duPont de Nemours and Company.

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