


81927-39

7/16/2009

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|  <p style="text-align: center;"><b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b><br/>Office of Pesticide Programs<br/>Registration Division (7505P)<br/>Ariel Rios Building<br/>1200 Pennsylvania Ave., NW<br/>Washington, D.C. 20460</p>  | EPA Reg. Number:<br>81927-39                      | Date of Issuance:<br>JUL 16 2009 |
|   | Term of Issuance: conditional                     |                                  |
| NOTICE OF PESTICIDE:<br><input checked="" type="checkbox"/> Registration<br><input type="checkbox"/> Reregistration<br>(under FIFRA, as amended)  | Name of Pesticide Product:<br>Alligare 2,4-D LV 6 |                                  |
| Name and Address of Registrant (include ZIP Code):<br><br>Alligare, LLC<br>13 N. 8 <sup>th</sup> Street<br>Opelika, AL 36801  |   |                                  |
| <p><b>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</b></p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA provided that you:</p> <ol style="list-style-type: none"> <li>1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.</li> <li>2. Make the following label changes:           <ol style="list-style-type: none"> <li>A. Remove/revise the words "recommended" and "suggested" when referring to application rate information as they imply that listed label use rate restrictions do not have to be followed and are therefore not enforceable.               <ol style="list-style-type: none"> <li>a) See page 3 of 20 under the 'Information' section: "...lower <i>recommended</i> rates..."<br/>"...higher recommended rates...", "<i>Unless otherwise recommended, suggested...</i>",<br/>"...use the same <i>recommended</i> amount...", "...unless specifically <i>recommended</i> on the label."</li> <li>b) See page 8 of 20: "For aerial application on grain, <i>it is suggested</i> to use..."</li> <li>c) See page 13 of 20: "NOTE: <i>Suggest</i> at least..."</li> <li>d) See page 14 of 20: "...product in a <i>recommended</i> minimum of 10 gallons...ground application and <i>recommended</i> minimum of 2 gallons for aerial..."</li> <li>e) See page 15 of 20: "...or a suitable approved agricultural surfactant at <i>recommended</i> label rate."</li> <li>f) See page 17 of 20: "Application is <i>recommended</i> 30 days prior to planting."</li> </ol> </li> </ol> </li> </ol> |   |                                  |
| Signature of Approving Official:<br>Joanne Miller<br>Product Manager 23<br>Herbicide Branch<br>Registration Division (7505P)  | Date:<br><br>JUL 16 2009                          |                                  |

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- B. Under Application Restrictions and Precautions on page 12 of 20 of the label, replace the text in **bold** font of the following sentence with the word "**rate**."  
"Apply a maximum of one application per growing season regardless of the treatment **area**."
- C. Correct the typographical error in the word 'Tees' on page 12 of 20 next to the Ornamental Turf heading: "...Golf Courses (Aprons, Fairways, Roughs and **Trees**)..."
- D. Revise all the current label use rates of **3 pints** to **2.9 pints** under the 'General Weed Control' section heading on pages 13 and 14 in order to comply with the 2,4-D RED use rate restriction of 2.0 lbs a.e./acre/application for annual and perennial broadleaf weeds in non-cropland areas.
- E. Change the use rate of  $\frac{3}{4}$  **gallon** under the 'Wild Southern Rose' subheading to **2.9 pints** to comply with the use rate restriction of 2.0 lbs 2,4-D a.e./acre.  
In addition, replace the sentence "Two or more treatments may be required." with "A maximum of two treatments may be made per year."

NOTE: If this is a woody plant (could not be confirmed with the USDA plants database), this plant/weed information should be placed under the 'Brush Control' section and application rates should be adjusted to: (i) a single application at 5.8 pints of product/acre for roadsides and fencerows and (ii) up to two applications/year at 2.9 pints of product/acre for rangeland.

- F. Remove the following text under the 'Use Precautions for Fallow land' subheading:  
"For non-labeled crops, do not plant for 3 months after treatment or until chemical had disappeared from soil."
- G. Revise the application rate restrictions under the 'Use Precautions for Non-cropland':
  - For annual and perennial weeds, the "Maximum of 3 pints..." must be revised to "Maximum of 2.9 pints..."
  - For woody plants, the "Maximum of 6 pints..." must be revised to "Maximum of 5.8 pints..."
- H. Company trademark information on pg. 20 of 20 must be revised with the following information:
  - 1) Oust is a registered trademark of I.E. DuPont de Nemours & Co. Inc.
  - 2) Buctril is a registered trademark of Bayer CropScience
  - 3) Surflan is a registered trademark of United Phosphorus
  - 4) Prowl is a registered trademark of BASF Corp.In addition, neither Telar nor Turbo are currently active registration names and must not be presented as tank mix partners with this product.

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EPA Reg. No. 81927-39  
Registration Letter

Submit one (1) copy of the revised final printed label for the record.  
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Enclosure



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - PRECAUCION**

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

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

- Long-sleeved shirt and long pants
- Shoes and socks
- Chemical-resistant gloves (except for pilots), and
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

**Engineering Control Statements:** Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

When handlers use closed systems, enclosed cabs, or aircraft 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- 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 and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire label before using this product. Use strictly in accordance with label precautionary statements and

directions. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Product should not be used in or near greenhouses.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, C0132C, (W.D. WA). For further information, please refer to EPA Web Site: <http://www.epa.gov/espp>.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

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

**NON-AGRICULTURAL USE REQUIREMENTS**

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

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried.

**INFORMATION**

This product is a low volatile ester especially prepared for use on crops and weeds where a susceptible crop in the near vicinity may be injured by a more volatile product. It is recommended for control of numerous broadleaf weeds and certain 2,4-D susceptible woody plants without injury to most established grasses. In cropland, 2,4-D is more effective than amines for controlling hard-to-kill weeds such as Bindweed, Curly dock, Smartweeds, Tansy ragwort, Thistle, Wild garlic, and Wild onions. For best results, apply this product as a water or oil spray during warm weather when young succulent weeds or brush are actively growing. Application under drought conditions often will give poor results. The lower recommended rates will be satisfactory on susceptible, annual weeds. For perennial weeds and conditions such as the very dry areas of the Western States where control is difficult, the higher recommended rates should be used. Deep-rooted perennial weeds such as Canada thistle and Field bindweed and many woody plants usually require repeated applications for maximum control.

Unless otherwise recommended, suggested application rates may be 1 to 10 gallons of total spray by air or 5 to 25 gallons by ground application equipment. If band treatment is used, base the dosage rate on the actual area to be sprayed. Although water quantities may vary due to different types of application equipment, sufficient water must be used to provide for complete and uniform coverage. In all cases, use the same recommended amount of 2,4-D per acre. When product is used for weed control in crops, the growth stage of the crop must be considered. For crop uses, do not mix with oil or other adjuvants unless specifically recommended on label. To do so may reduce herbicide's selectivity and could result in crop damage. If you are not prepared to accept some degree of crop injury, do not use this product.

Crop varieties vary in response to 2,4-D and some are easily injured. Apply this product to varieties known to be tolerant to 2,4-D. If you are uncertain concerning tolerant varieties or local use situations that may affect crop tolerance to 2,4-D, consult your seed company, State Agricultural Extension Service or qualified crop consultant for advice.

Aerial applications should be used only when there is no danger of drift to susceptible crops. Many states have regulations concerning aerial application of 2,4-D formulations. Consult local regulatory authorities before making applications. Although this product is a low volatile formulation, at temperatures above 90°F vapors may damage susceptible crops growing nearby.

**TO PREPARE THE SPRAY:** (1) Fill the spray tank about half full with water, then add the required amount of this product with agitation, and finally the rest of the water.

**NOTE:** This product in water forms an emulsion which tends to separate unless the mixture is kept agitated. Continue agitation during application until spray tank is empty. (2) If oil is added, first mix this product and the oil and then add this mixture to the water. However, with adequate agitation, the oil can be added after the product is mixed in water. (3) If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

**SPRAY DRIFT MANAGEMENT**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperatures, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size**

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASAE Standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or more fine spray, apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed**

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a medium spray, leave one swath unsprayed at the downwind edge of the field.

**Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Susceptible Plants**

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

**Other State and Local Requirements**

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

**Equipment**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. 2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

**For aerial application:**

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications. When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

**For ground boom application:**

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**WEEDS CONTROLLED**

This product will kill or control the following weeds in addition to many other noxious plants susceptible to 2,4-D.

|                      |                   |                     |                    |
|----------------------|-------------------|---------------------|--------------------|
| Alder                | Croton            | Lupine              | Smartweed          |
| Alfalfa              | Curly Indigo      | Mallow              | Sneezeweed         |
| Artichoke            | Dandelion         | Manzanita           | Southern wild rose |
| Aster                | Devil's claw      | Marijuana           | Sowthistle         |
| Austrian fieldcress  | Dock              | Many flowered aster | Spanishneedle      |
| Beggartick           | Dogbane           | Marshelder          | St. Johnswort      |
| Biden                | Dogfennel         | Mexican weed        | Starthistle        |
| Bindweed             | Elderberry        | Milkvetch           | Stinging nettle    |
| Bitterweed           | Fanweed           | Morningglory        | Stinkweed          |
| Bitter wintercress   | Fiddle neck       | Musk thistle        | Sumac              |
| Blackeyed Susan      | Flea bane (Daisy) | Mustard             | Sunflower          |
| Blessed thistle      | Flixweed          | Nettle              | Sweet clover       |
| Blue lettuce         | Florida pusley    | Nutgrass            | Tansymustard       |
| Box elder            | Frenchweed        | Orange hawkweed     | Tansy ragwort      |
| Broomweed            | Galinsoga         | Parsnip             | Tanweed            |
| Buckbrush            | Goatsbeard        | Pennycress          | Tarweed            |
| Buckhorn             | Goldenrod         | Pennywort           | Texas blueweed     |
| Bull thistle         | Goosefoot         | Peppergrass         | Thistles           |
| Bur ragweed          | Ground ivy        | Pepperweed          | Toadflax           |
| Burdock              | Gumweed           | Pigweed             | Tumbleweed         |
| Burhead              | Halogeton         | Plantain            | Velvetleaf         |
| Buttercup            | Hawkweed          | Poison hemlock      | Vervain            |
| Canada thistle       | Healall           | Poison ivy          | Vetch              |
| Carpetweed           | Hemp              | Pokeweed            | Virginia creeper   |
| Catnip               | Henbit            | Poorjoe             | Wild buckwheat     |
| Chamise              | Hoary cress       | Povertyweed         | Wild carrot        |
| Cherokee rose        | Honeysuckle       | Prickly lettuce     | Wild garlic        |
| Chickweed            | Horsetail         | Primrose            | Wild lettuce       |
| Chicory              | Indiana mallow    | Puncture vine       | Wild onion         |
| Cinquefoil           | Indigo            | Purslane            | Wild parsnip       |
| Coastal redstem sage | Ironweed          | Rabbitbrush         | Wild radish        |



|                   |                     |                   |   |
|-------------------|---------------------|-------------------|---|
| Cockle            | Jerusalem artichoke | Ragweed           | Wild rape   |
| Cocklebur         | Jewelweed           | Redstem           | Wild strawberry   |
| Coffeebean        | Jimsonweed          | Russian thistle   | Wild sweet potato   |
| Coffeeweed        | Klamathweed         | Sagebrush         | Willow  |
| Common sowthistle | Knotweed            | Salsify           | Witchweed   |
| Cornflower        | Kochia              | Sand shinnery oak | Wormseed  |
| Coyotebrush       | Lambsquarter        | Shepardspurse     | Wormwood  |
| Creeping Jenny    | Locoweed            | Sicklepod         | Yellow rocket   |
|                   |                     |                   | Yellow starthistle and other broadleaf weeds which may be listed elsewhere on this label. |

Some of these species may require repeat applications and/or use of higher rate recommended on this product label even under ideal conditions for applications.

Control of Pigweeds in the High Plains areas of Texas and Oklahoma may not be satisfactory with this product.

**SELECTIVE WEEDING IN CROPS**

**USE IN LIQUID NITROGEN FERTILIZER:** This product may be combined with liquid nitrogen fertilizer suitable for foliage application on corn, grass, pastures, or small grains in one operation. Use product according to directions on this label for those crops. Use liquid nitrogen fertilizer at rates recommended by supplier or Extension Service Specialist. Mix the product and fertilizer according to the following instructions: Fill the spray tank approximately half full with the liquid nitrogen fertilizer. Add the product while agitating the tank. Add the remainder of the fertilizer while continuing to agitate. Apply immediately, maintaining agitation during application until tank is empty. **Do not apply during cold (near freezing) weather.** Spray mixture must be used immediately and may not be stored. Do not allow mixture to stand overnight.

**NOTE:** If good, continuous agitation is not maintained, separation of the spray mixture and/or clogging of the nozzles is likely to occur. Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of leaf burn.

**CORN (Field, Sweet and Popcorn):**

- Pre-plant- 2/3 to 1-1/2 pints
- Pre-emergent- 1/2 pint
- Emergent- 3/4 pint
- Post-emergent- Average Conditions – 1/3 pint
- Dry Conditions\* - 1/3 to 1/2 pint
- Pre-harvest (Field and Popcorn only) – 2/3 to 1-1/2 pints

\*For Western States- Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming

Use with recommended amounts of water to make per acre applications. Use lower rates of product for easily-killed weeds, on inbreds, and when corn is growing rapidly. Do not cultivate for about 2 weeks after treatment while corn is brittle.

**Pre-plant:** To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 7 to 14 days before planting. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth. Use high rate for control of less susceptible weeds or cover crops such as alfalfa.

**Pre-emergent:** Apply product to emerged weeds from 3 to 5 days after planting but before corn emerges. Do not use on very light, sandy soils. Use the higher rates on heavy soils. Plant corn as deep as practical. Product will not control weeds which have not emerged.

**Emergent:** Apply in 10 to 30 gallons of water per acre just as corn plants are breaking ground.

**Post-emergent:** Best results are usually obtained when weeds are small and corn is 4 to 18 inches tall. As soon as corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much as possible; direct spray over tops of weeds but not over the corn. Do not apply from tasseling to dough stage. If corn is growing rapidly and temperature and soil moisture is high, use 1/3 pint per acre to reduce possibility of crop damage. Delay cultivation for 8 to 10 days to prevent stalk breakage due to temporary brittleness caused by 2,4-D. Application rates of up to 2/3 pint per acre may be used to control some hard-to-control weeds. However, the possibility of injury to the corn is increased.

Do not use with atrazine, oil or other adjuvants. Since the tolerance to 2,4-D of individual hybrids varies, consult your seed supplier, local Extension Service, Agricultural Experiment Station, or University Weed Specialist for information.

**Pre-harvest (Field and Popcorn only):** After the hard dough or denting stage, apply 2/3 to 1-1/2 pints in 20 to 50 gallons of water per acre by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as Bindweed, Cocklebur, Dogbane, Jimsonweed, Ragweed, Sunflower, Velvetleaf and vines that interfere with harvesting. The high rate will be needed for tough weeds under stress.

**Use Precautions for Corn, field and pop**

Do not use treated crop as fodder for 7 days following application.

The preharvest interval (PHI) is 7 days.

Maximum of 4.25 pints of product/acre per crop cycle.

Preplant or preemergence

Limited to one preplant or preemergence application per crop cycle.

Maximum of 1.45 pints of product/acre per application.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 3/4 pint of product/acre per application.

Preharvest:

Preharvest applications are permitted on field and popcorn only.

Limited to one preharvest application per crop cycle.

Maximum of 2 pints of product/acre per application.

**Use Precautions for Sweet Corn**

Do not use treated crop as fodder for 7 days following application.

The preharvest interval (PHI) is 45 days.

Minimum of 21 days between applications.

Maximum of 2 pints of product/acre per crop cycle.

Preplant or preemergence:

Limited to one preplant or preemergence application per crop cycle.

Maximum of 1.45 pints of product/acre per application.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 3/4 pint of product/acre per application.

**CEREAL GRAINS (Barley, Oats, Wheat, Rye), not underseeded with a legume:**

|                     |               |   |
|---------------------|---------------|---|
| Wheat, Barley, Rye- | Annual weeds- | Average Conditions- 1/3 to 2/3 pint;                |
|                     |               | Dry Conditions (Western States)- 2/3 to 1-1/3 pints |

|                  |   |
|------------------|---|
| Perennial weeds- | Average Conditions- 2/3 pint                        |
|                  | Dry Conditions (Western States)- 5/6 to 1-1/3 pints |
| Pre-harvest-     | Average Conditions- 2/3 to 3/4 pint                 |

Oats - Spring- 1/3 pint and Fall- 1/3 to 1/2 pint

For aerial application on grain, it is suggested to use this product in 1 or more gallons of water per acre, and for ground application, use a minimum of 10 gallons of water per acre. Make application in the spring when the grain is fully tillered or stooled (usually about 4 to 8 inches high), but before jointing. Do not spray before the tiller stage nor from early boot to dough stage.

Use lower rate of product for easily-killed seedling weeds, and higher rate for older and more tolerant weeds. Do not treat grains underseeded with legumes, and do not spray winter grains in the fall. To control large weeds that will interfere with harvest or to suppress perennial weeds, pre-harvest treatment can be applied when grain is in the dough stage. Higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in Western areas. However, do not use unless possible crop injury will be acceptable. For the high rates on barley and Spring wheat as well as rye and Winter wheat, consult State Agricultural Experiment Station or Extension Service weed specialist for recommendations or suggestions to fit local conditions.

**For emergency weed control in wheat:** Perennial broadleaf weeds - apply 1.75 pints per acre when weeds are approaching bud stage. Do not spray grain in the boot to dough stage. The 1.75 pint per acre application can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury. Use lower rate if small annual and biennial weeds are the major problem. Use the higher rate if perennial weeds or annual and biennial weeds are present which are in the hard-to-kill categories as determined by local experience.

The higher rates increase the risk of grain injury and should be used only where the weed control problem justifies the grain damage risk. Do not apply this product to grain in the seedling stage. For aerial application on grain, apply this product in 3 to 10 gallons of water per acre. For ground application, use a minimum of 10 gallons of water per acre.

**Spring Seeded Oats:** Use 1/3 pint per acre with recommended amount of water to give good coverage. Apply after the fully tillered stage, except during the boot to dough stage.

**Fall Seeded Oats (Southern):** Apply 1/6 to 5/6 pints per acre with recommended amount of water after full tillering but before early boot stage. Some difficult weeds may require the higher rates of 1/2 to 5/6 pint per acre for maximum control but injury may result. Do not spray during or immediately following cold weather.

**Pre-harvest Treatment:** Apply 3/4 pint of this product with recommended amount of water per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth.

**Spring Wheat and Barley:**

**Onset of Tillering Stage:** Grains are generally tolerant of these treatments, but risk of crop injury is greater than at full tillering stage. Do not make application if the risk of injury is unacceptable. Apply 6.0 to 9.0 fluid ounces of this product per acre in the spring when grain has 1 or more tillers as well as 3 or more leaves. Do not apply from boot to dough stage. Apply 6.0 to 12.0 fluid ounces of this product per acre when grain is in the full tiller stage (usually 4 to 8 inches tall). Do not apply from boot to dough stage.

**Winter Wheat, Barley and Rye:**

**Onset of Tillering Stage:** Grains are generally tolerant of these treatments, but risk of crop injury is greater than at full tillering stage. Do not make application if the risk of injury is unacceptable. Apply 6.0 to 12.0 fluid ounces of this product per acre in the spring when grain has 1 or more tillers as well as 3 or

more leaves. Do not apply from boot to dough stage.

**Use Precautions for Cereal Grains (wheat, barley, millet, oats, and rye)**

The preharvest interval (PHI) is 14 days.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 1.8 pints of product/acre per application.

Preharvest:

Limited to one preharvest application per crop cycle.

Maximum of 3/4 pint of product/acre per application.

Limited to 2.5 pints of product/acre per crop cycle.

**NOTE:** Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured.

**Barley and Wheat:** Control of Wild garlic and Wild onion.

For improved control of difficult weeds, including Wild garlic and Wild onion, apply 2/3 to 1-1/3 pints of product per acre. Since these rates may injure the crop, do not use unless possible crop damage is acceptable. For the higher rates on barley and Spring wheat, consult your local State Agricultural Experiment Station or Extension Service weed specialist for recommendations or suggestions to fit local conditions.

**Control of Wild Garlic in Stubble Grain and Corn Fields:** Following the harvest of small grains and corn, Wild garlic often produces new fall growth. This should be sprayed with 2-2/3 to 4 pints of product in 20 to 40 gallons of water per acre. This is a useful practice as one part of a Wild garlic control program. Do not plant any crop for three months after treatment.

**SORGHUM (Milo):** For post-emergent control in average conditions, use 1/3 pint; dry conditions (Western States), use 1/3 to 1/2 pint with suggested volume of 5 gallons of water by air or 6 to 20 gallons with ground equipment to make per acre applications. Apply to sorghum when crop is 5 to 15 inches high to top of canopy with secondary roots well established. If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Do not apply during boot, flowering or early dough stage. Rates of up to 2/3 pint per acre may be used to control some hard-to-control weeds. However, the chance of crop injury is increased with the higher rates. Do not use with oil. Because temporary injury may occur if conditions of high temperature and high soil moisture exist, use lower rate. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact seed company or your Agricultural Experiment Station or Extension Service weed specialist for this information.

**Use Precautions for Sorghum (Milo)**

The preharvest interval (PHI) is 30 days.

Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

Postemergence:

Limited to one postemergence application per crop cycle.

Maximum of 3/4 pint of product/acre per application.

**RED POTATOES (Grown for fresh market):** Properly timed application of this product generally enhances red color, aids in storage retention of red color, improves skin appearance, increases tuber set, and improves tuber size uniformity (fewer jumbos). Crop response may vary depending on variety, stress factors, and local conditions. Consult with Agricultural Extension Service and other qualified crop advisors for local recommendations. Varieties with naturally dark red color generally benefit less from treatment. Apply 1.6 fluid ounces of this product per acre in 5 to 25 gallons of water using ground or aerial equipment. The specific spray volume selected should be sufficient for good coverage of plants. Make

first application when potatoes are in the pre-bud stage (about 7 to 10 inches high) and make a second application about 10 to 14 days later. Do not exceed two applications per crop. Do not harvest within 45 days of application. Uneven application, or mixture with other pesticides and additives, may increase the risk of crop injury.

#### **Use Precautions for Red Potatoes**

Permitted forms of 2,4-D include acid, salts, amines, and esters.

Only for use on potatoes intended for fresh market.

The preharvest interval (PHI) is 45 days.

#### Postemergence:

Limited to two postemergence applications per crop cycle.

Maximum of 1.6 fluid ounces of product/acre per application.

Minimum of 10 days between applications.

**GRASS SEED CROPS:** Apply 2/3 to 2-2/3 pints of product in up to 30 gallons of water per acre by air or ground equipment in spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to the milk stage. Spray seedling grass only after the five leaf stage, using 1/2 to 2/3 pint per acre to control small seedling weeds. After the grass is well established, higher rates of up to 2-2/3 pints can be used to control hard-to-kill annual or perennial weeds. For best results, do not use on bentgrass unless grass injury can be tolerated. Application to grass seed crops is limited to 2 application per year with a minimum of 21 days between applications.

**NO-TILL APPLICATON:** This product may be used in the broadcast method with a normal boom or with direct pipes set 12 inches apart in 36 inch rows. When using this product, apply at a rate of 9-1/2 ounces in 10 gallons of water per acre. Maintain uniform pressure and speed when applying.

**GRASS CUT FOR HAY:** The rates of application per acre per application per site. Use 2/3 to 2-2/3 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Use only on established stands of perennial grasses. Do not use on alfalfa, bentgrass, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage when grass seed production is desired.

#### **Use Precautions and Restrictions for Grass Cut for Hay**

Do not cut forage for hay within 7 days of application.

When using on Grass Cut for Hay, there is a (1) 7 day pre-grazing interval for dairy cattle; (2) 3 day pre-slaughter interval for meat animals.

**ESTABLISHED PASTURES AND RANGELANDS:** The rates of application per acre per application per site. Use 2/3 to 2.9 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Use only on established stands of perennial grasses. Do not use on alfalfa, bentgrass, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage when grass seed production is desired.

**Bitterweed, Broomweed, Croton, Docks, Kochia, Marshelder, Musk thistle and Other Broadleaf Weeds:** Use 2-2/3 to 2.9 pints of this product in 10 to 30 gallons of water per acre. If weeds are young and growing actively, 1-1/3 pints per acre will provide control of some species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

**Weed Control in Newly Sprigged Coastal Bermudagrass:** Apply 1-1/2 to 2.9 pints of this product in 20 to 100 gallons of water per acre pre-emergence and/or post-emergence.

**Wild Garlic and Wild Onion Control:** Apply 2-2/3 to 2.9 pints of product per acre making three applications, fall-spring-fall or spring-fall-spring, starting in the late fall or early spring.

#### **Use Precautions for Pasture and Rangeland**

Do not cut forage for hay within 7 days of application.

Postemergence:

For susceptible annual and biennial broadleaf weeds: Use 1.45 pints of product/acre per application.

For moderately susceptible biennial and perennial broadleaf weeds: Use 1.45 to 2.9 pints of product/acre per application.

For difficult to control weeds and woody plants: Use 2.9 pints of product/acre per application.

Spot treatment: Use 2.9 pints of product/acre.

Maximum of two applications per year.

Maximum of 5.8 pints of product/acre per year.

Minimum of 30 days between applications.

If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

**CROP RESIDUE MANAGEMENT SYSTEMS IN SOYBEANS (PREPLANT ONLY)**

**INFORMATION:** This product is a herbicide that provides control of many emerged susceptible annual and perennial broadleaf weeds. It may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. This product should only be applied preplant to soybeans in situations such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below. Do not use any tillage operations between application of this product and planting soybeans.

**MIXING INSTRUCTIONS:** Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of 2,4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product.

**APPLICATION PROCEDURES:** Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 2 or more gallons of water per acre in aerial equipment and 10 or more gallons of water per acre in ground equipment.

**APPLICATION TIMING AND USE RATES**

| 2,4-D Formulation Used | Maximum Rate (per acre)                                       | When to Apply (Days prior to planting Soybeans) |
|------------------------|---|---|
| Alligare 2,4-D LV 6    | 11.6 fluid ounces (apx. 2/3 pint)<br>(0.5 pound. a.e./acre)   | NOT LESS THAN 7 DAYS                            |
|                        | 23.3 fluid ounces (apx. 1-1/3 pint)<br>(1.0 pound. a.e./acre) | NOT LESS THAN 30 DAYS                           |

**WEEDS CONTROLLED**

|                             |                      |                         |
|-----------------------------|----------------------|-------------------------|
| Alfalfa *                   | Iron-weed            | Smartweed-Pennsylvania* |
| Bindweed*                   | Lambsquarters-common | Sowthistle-annual       |
| Bittercress-smallflowered   | Lettuce-prickly      | Speedwell               |
| Bullnettle                  | Morningglory-annual  | Thistle-Canada*         |
| Buttercup-smallflowered     | Mousetail            | Thistle-bull            |
| Carolina geranium           | Mustard-wild         | Velvetleaf              |
| Cinquefoil-common and rough | Onion-wild*          | Vetch-hairy*            |
| Clover-red*                 | Pennycress-field     | Virginia copperleaf     |
| Cocklebur-common            | Peppergrass*         |                         |

|                         |                 |  |
|-------------------------|-----------------|--|
| Dandelion*              | Purslane-common |  |
| Eveningprimrose-cutleaf | Ragweed-common  |  |
| Garlic-wild*            | Ragweed-giant   |  |
| Horseweed or maretail   | Shepherdspurse  |  |

\*These species are only partially controlled.

For best weed control at time of treatment, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage. The response of individual weed species to this product is variable. Consult your local County or State Agricultural Extension Service or crop consultant for advice.

**APPLICATION RESTRICTIONS AND PRECAUTIONS**

**Important Notice** - Unacceptable injury to soybeans planted in fields treated with this product may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.

Do not use on low organic sandy soils (<1.0%).

Apply a maximum of one application per growing season regardless of the treatment area.

Do not apply this product when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants.

**Livestock Grazing Restriction:** Do not feed hay, forage or fodder. Restrict livestock from grazing treated fields. Livestock should be restricted from feeding/grazing of treated cover crops.

In fields treated with this product, plant soybean seed as deep as practical or at least 1.0 inch deep. Adjust the planter, if necessary, to ensure that planted seed is completely covered.

Do not apply this product prior to planting soybeans if you are not prepared to accept the results of soybean injury, including possible loss of stand and yield.

Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D use.

**SELECTIVE WEEDING IN NON-CROP AREAS**

**ORNAMENTAL TURF** such as Cemeteries, Golf Courses (Aprons, Fairways, Roughs and Trees), Lawns, Parks, and Sod Farms:

Use 1-1/3 to 2 pints of product in 40 to 180 gallons of water to give good coverage to one acre on established stands of perennial grasses. Usually 2 pints per acre provides good weed control under average conditions. Treat when weeds are young and actively growing. Do not apply to newly seeded grasses until well established. Use higher rate for hard-to-kill weeds. Use higher rate when using higher volume of water per acre. Do not exceed specified application dosages for any area. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years. Spray when air temperature is between 50° and 85°F. Avoid applying during excessively dry or hot periods unless irrigation (watering) is used before treatment. Do not apply if rainfall is expected within 48 hours, nor should lawns be irrigated for 48 hours following application. For optimum results, turf should not be mowed for 1 to 2 days before and after application. Reseed no sooner than 3 to 4 weeks after application of this product. Adding oil, wetting agent, or other surfactant to the spray may be used to increase effectiveness on weeds but doing so may reduce selectivity to turf resulting in turf damage. Maximum kill of weeds will be obtained by applying in spring and early fall when weeds are actively growing. Do not use on golf greens nor on dichondra or other broadleaf herbaceous ground covers. Do not use on

creeping grasses such as bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established.

**Use Precautions for Turf, ornamental (golf courses, cemeteries, parks, sports fields, turfgrass, lawns and other grass areas)**

Postemergence:

Limited to two postemergence applications per year.

Maximum of 2 pints of product/acre per application.

The maximum seasonal rate is 4 pints of product/acre, excluding spot treatments.

**GENERAL WEED CONTROL**

**(Airfields, Fencerows, Industrial Sites, Rights-of-Way, Roadsides, Vacant Lots, and similar areas)**

Use 1-1/3 to 3 pints of product per acre. Apply when most annual broadleaf weeds are still young and growing vigorously. Apply when perennial and biennial weeds are actively growing and near the bud stage, but before flowering. For best results on Musk thistle and Tansy ragwort treat in rosette stage, before bolting. A second application is usually needed for best results on Bindweed, Nettle and Thistle. Treat Garlic or Wild onion in early Spring and in Fall when they are young and growing actively. Mix 2-2/3 pints of this product in 2 quarts kerosene or diesel oil, then add this mixture to 100 gallons of water. Apply 300 to 500 gallons of spray per acre, depending on the stand. The addition of a wetting agent (spray adjuvant) is suggested. Usually 2-2/3 pints per acre will give adequate control. Do not use on herbaceous ground covers or creeping grass such as Bent. Legumes will usually be damaged or killed. Deep-rooted perennials may require repeat applications. Do not use on freshly seeded turf until grass is well established. Delay reseeding for 30 days.

**Bitterweed, Broomweed, Croton, Docks, Kochia, Marshelder, Musk thistle and Other Broadleaf Weeds:** Use 2-2/3 to 3 pints of this product in 10 to 30 gallons of water per acre. If weeds are young and growing actively, 1-1/3 pints per acre will provide control of some species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

**Weed Control in Newly Sprigged Coastal Bermudagrass:** Apply 1-1/2 to 3 pints of this product in 20 to 100 gallons of water per acre pre-emergence and/or post-emergence.

**Wild Garlic and Wild Onion Control:** Apply 2-2/3 to 3 pints of product per acre making three applications, fall-spring-fall or spring-fall-spring, starting in the late fall or early spring.

**CONTROL OF WILD SOUTHERN ROSE:** On roadsides and fencerows, use 3/4 gallon of this product plus 4 to 8 ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly as soon as foliage is well developed. Two or more treatments may be required. On rangeland, apply a maximum of 2.9 pints of this product per acre per application per site.

**SPOT TREATMENT IN NON-CROP AREAS:** To control broadleaf weeds in small areas with a hand or back pack sprayer, use 2-2/3 fluid ounces of this product per gallon of water and spray to thoroughly wet all foliage.

**GRASSES IN CONSERVATION RESERVE PROGRAM AREAS:** To control annual broadleaf weeds, apply when weeds are actively growing. Use 1/3 to 2/3 pint per acre when weeds are small; use higher rates on older weeds. Excessive injury may result if applied to young grasses with fewer than 6 leaves or prior to grasses being well established. To control biennial and perennial broadleaf weeds in established grasses, apply at a rate of 1-1/3 to 2-2/3 pints per acre. Apply to actively growing weeds. Treat when biennial weeds are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage.

**NOTE:** Suggest at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground. Do



not harvest or graze treated Conservation Reserve Program areas. Do not apply to grasses in the boot to dough stage if grass seed production is desired.

**FALLOW LAND:** Use 1-1/3 to 3 pints of this product in a recommended minimum of 10 gallons of water per acre for ground application and recommended minimum of 2 gallons for aerial application of water per acre on annual broadleaf weeds and on established perennial species such as Canada thistle and Field bindweed. Use lower rate when annual weeds are small (2" to 3" tall) and growing actively. Use the higher rate on older and drought-stressed plants. Spray musk thistles and other biennial species while in seedling to rosette stage, and before flower stalks are initiated. The lower rate can be used in spring during rosette stage. In fall or after flower stalks have developed, use highest rate. Spray perennial weeds in bud to bloom stage, or in good vegetative growth. Do not disturb treated area for at least 2 weeks after treatment or until weed tops are dead.

**Use Precautions for Fallow land:**

Only labeled crops can be planted within 30 days of treatment.

For non-labeled crops, do not plant for 3 months after treatment or until chemical has disappeared from soil.

Maximum of 2 applications per year.

Maximum of 3 pints of product per acre/application.

Minimum of 30 days between applications.

**BRUSH CONTROL**

**WOODY PLANT CONTROL:** To control woody plants susceptible to 2,4-D such as Alder, Buckbrush, Cherokee rose, Elderberry, Japanese honeysuckle, Sumac, Virginia creeper, Wild grape and Willow on non-crop areas such as rights-of-way, fence rows, roadsides and along ditchbanks, use 1-1/3 to 2 quarts of product per acre in adequate water (30 to 100 gallons). Lower volume of water can be used unless applying through such equipment as a Directa-Spra, Wobbler, Mini Wobbler, or Spirometer. Spray brush 5 to 8 feet tall after Spring foliage is well developed. Wet all parts of the plants thoroughly, including stem and foliage, to the point of runoff. Higher volumes of up to 300 to 500 gallons of spray per acre may be necessary where the brush is very dense and over 6 to 8 feet high.

Spraying can be effective at anytime up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Control will be less effective in mid-summer during hot, dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray if needed for increased effectiveness. Hard-to-control species may require re-treatment next season. In general, it is better to cut tall woody plants and spray sucker growth when 2 to 4 feet tall.

**SAND SHINNERY OAK AND SAND SAGEBRUSH:** On the oak, use 1-1/2 pints of this product in 5 gallons of oil or in 4 gallons of water plus 1 gallon of oil per acre. Apply by aircraft between May 15 and June 15. On the sagebrush, use 1-1/2 pints in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

**BIG SAGEBRUSH AND RABBITBRUSH: (For Pastures and Rangelands See Note Below):** Use 1-1/2 to 4-1/2 pints in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For Rabbitbrush, the 4-1/2 pints rate is usually required. Brush should be leafed out and growing actively when treated. Retreatment may be needed.

**Buckbrush, Chamise, Coastal Sage, Coyotebrush, Manzanita, and certain other Chaparral Species:** Use 1-1/2 to 4-1/2 pints per acre in 5 to 10 gallons of water. One gallon of fuel oil may be included in the spray mixture for added effectiveness. Make applications by aircraft or ground equipment to obtain uniform spray coverage. For effective control, the brush must be fully leafed out and growing actively when sprayed. Retreatment may be needed. Consult State or local brush control specialists for most effective rate, volume and timing of spray application.

**Use Precautions for Non-Cropland (fencerows, hedgerows, roadsides, ditches, rights-of-way,**

**utility power lines, railroads, airports, and industrial sites)****Postemergence (annual and perennial weeds):**

Limited to two applications per year.

Maximum of 3 pints of product/acre per application.

Minimum of 30 days between applications.

**Postemergence (woody plants):**

Limited to one application per year.

Maximum of 6 pints of product/acre per year.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

**USES IN FOREST MANAGEMENT**

**Conifer Release:** For control of Alder, apply 1 to 1-1/3 quarts of product per acre in 8 to 25 gallons of water, and apply as a foliage spray. Treat when 3/4 of the brush foliage has attained full size leaves and before new conifer growth reaches 2 inches in length. This is usually between early May and mid-June. Adjust treatment date depending on stage of growth and brush species. This may cause leader deformation on exposed firs, but they should overcome this during the second year after spraying. To control susceptible brush species such as Ceanothus spp., Chinquapin, Madrone, Manzanita, Oak and Tanoak and to release Douglas fir, Grand fir, Hemlock, or Sitka spruce, apply 2 quarts of product per acre before new growth on Douglas fir is 2 inches long. To control Manzanita and Ceanothus in Ponderosa pine, apply 2 quarts of this product before pine growth begins in spring.

To increase performance, add 2 to 4 quarts of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at recommended label rate.

After Black Spruce, Jack Pine, Northern conifers, Red Pine, and White Spruce cease growth and "harden off" (usually in mid-July), a spray of 1 to 2 quarts of product in 8 to 25 gallons of water per acre may be applied by air to control certain competing hardwood species such as Alder, Aspen, Birch, and Willow. Since this treatment may cause occasional conifer injury, do not use if such injury cannot be tolerated. Consult your Regional or Extension Forester or State herbicide specialist for recommendations to fit local conditions.

**Tree Injections (Pine Release):** To control hardwoods, such as Elm, Hawthorn, Hickory, Maple, Oak, Pecan, Sumac, and Sweetgum in forest and other non-crop areas, apply this product undiluted in a concentrate tree injector calibrated to apply 0.7 ml. per injection. Space injections 2 inches apart edge to edge, completely around the tree and close to the base. The injector bit must penetrate the inner bark. On hard-to-kill species such as Ash, Blue beech, Dogwood, Hickory, and Red maple, make injections 1 to 1-1/2 inches apart edge to edge. Treatment may be made at any time of the year however only one injection treatment is permitted per year. For best results, injections should be made during growing season, May 15 to October 15. For dilute injections, mix 2/3 gallon of this product in 19 gallons of water.

**Dormant Application (other than pine):** For the control of susceptible deciduous brush species such as Alder, Cascara, Cherry poplar and Serviceberry, apply up to 2 quarts of product per acre in sufficient diesel, fuel oil or kerosene for good coverage. Application may be made by ground or air and should be made before conifer bud break.

**Pine Only:** Make application while pine buds are still dormant. Apply 1-1/3 quarts of product per acre in sufficient water for good coverage by air or ground equipment. Do not use this application unless some pine injury is acceptable. Use of diesel, kerosene, or other oil, or addition of surfactants to spray mix may cause unacceptable pine injury.

**Christmas Tree Plantations:** For control of labeled broadleaf weeds in Douglas Fir Christmas trees, use 2/3 to 1-1/3 pints of this product per acre.

Apply over the top of Douglas Fir by ground or aerial application equipment only when the trees are dormant, prior to bud break. Do not spray over the top of pine or true firs (*Abies* spp.).

Directed Sprays may be made to weeds in Christmas tree plantations of all conifer species, but the spray must not contact tree foliage as injury may occur. Do not apply to weakened, diseased, or stressed seedlings since unacceptable injury can occur. This product may be mixed with Atrazine for Christmas tree application. (See Tank Mix section)

**Herbaceous Weed Control:** To control over-wintering susceptible weeds such as False dandelion, Klamath weed, Plantain, Tansy ragwort, apply 2/3 to 2 quarts of product in sufficient water for good coverage. Make application at rates and timing indicated above if pines are present. For control of hazel brush and similar species in the Lake States area, apply 1-1/3 quarts of product per acre in 8 to 25 gallons of water, when new shoot growth of Hazel is complete (usually mid-July).

**Site Preparation: (As Budbreak Spray)** - For control of Alder prior to planting seedlings, apply 1-1/3 to 2-2/3 quarts of product per acre in 8 to 25 gallons of water, after Alder budbreak but before foliage is 1/4 full size. Application may be made by air or ground. If desired, diesel, fuel oil or kerosene may be substituted for water as the diluent. **(As Foliage Spray)** - For control of Alder prior to planting seedlings, apply 1-1/3 to 2 quarts of product per acre in 8 to 25 gallons of water, after most Alder leaves are full size. To increase penetration, 2 to 4 quarts per acre of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at recommended label rates may be added to spray mixture.

**Use Precautions for Forestry Uses:**

Make only 1 broadcast application per year.

Make only 1 injection treatment per year.

**TANK MIXES**

Read and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

**Using this product and Buctril® ME4 for weed control on cereal grains (Barley, Rye and Wheat):**

Buctril ME4 Broadleaf Herbicide will control some annual weeds that are resistant to this product and may be tank mixed with this product for broader spectrum weed control on small grains. In cereal areas except Idaho, Oregon and Washington: use 1/3 to 2/3 pint of this product plus 1/2 to 3/4 pint of Buctril ME4 per acre. In Idaho, Oregon and Washington: use 1/3 to 2/3 pint of this product plus 3/4 to 1 pint Buctril ME4 per acre. First mix this product in water, then add the Buctril ME4. Use the higher rates for larger weeds or where weed growth is slow due to dry or cold weather. Apply before weeds are 6 inches high. Use 10 to 20 gallons total spray volume per acre with ground equipment or 5 to 10 gallons total spray volume with air application. Use higher volume on larger weeds.

**Using this product with Banvel SGF and Ally (or Express) or Diablo to provide more complete**

**Kochia control:** Offers quick burndown. Provides residual activity with Ally to control later weed flushes making harvesting easier and reducing post-harvest weed control needs. Controls broader weed spectrum while offering better control of Flixweed, Mustards, Russian thistle, and Wild buckwheat. Controls large weeds. Allows for early treatment. Apply 5.3 ounces of this product with 0.1 ounce of Ally plus either 2 to 3 ounces of Diablo or 4 to 6 ounces of Banvel SGF per area. The tank mix can be applied to Winter wheat and the four-leaf stage (tillering) to prior to joint. It can be applied to Spring wheat from the four-leaf stage through the five leaf stage. Growers who want to rotate to a sensitive crop following wheat and are concerned about carryover from Ally, can substitute Express in the tank mix which allows crop rotation 60 days after application. The recommended rate of Express is 1/6 oz. per acre.

**Using this product and Sencor as knockdown herbicides for no till:** This product with Sencor DF alone or in combination with Dual, Lasso, Surflan or Prowl may be applied as an early preplant surface application for the control of certain broadleaf weeds and grasses in soybeans in minimum or no-till

products. Application is recommended 30 days prior to planting. Apply at rate of 1-1/3 pints of this product (1 pound A.I.) per acre with labeled rates of Sencor. When grass herbicide is used in tank mix, apply at the rates specified on that product's label.

**Using this product and Aatrex for weed control in Christmas tree and forest plantings:** A tank mix of these two products can be used to control weeds and thus aid in the establishment of young transplants of Austrian pine, Bishop pine, Blue spruce, Douglas fir, Grand fir, Jeffery pine, Knobcone pine, Loblolly pine, Monterey pine, Nobel fir, Ponderosa pine, Scotch pine, Sitka spruce, Slash pine and White fir.

The mix should be applied between fall and early spring, preferably in February or March, while trees are still dormant, or soon after transplanting. Weeds should not be more than 1-1/2 inches high. It can be applied with either ground or air equipment. Helicopters have been highly effective for reforestation applications or steep terrain. Uniform application is the key to good weed control. Use 20 to 40 gallons of water per acre for ground applications. When applying by air, use a minimum of 5 gallons of water. When applying more than 5 pounds of Aatrex, use a minimum of 1 gallon of water for each 1 to 1-1/2 pounds of Aatrex. Be sure equipment is properly calibrated. All screens in the spray system - nozzles, and in-line and suction strainers - should be 15 mesh or coarser. Use a pump with capacity to maintain a nozzle pressure of 35 to 40 psi, and sufficient agitation to keep the mixture in suspension in the spray tank. If a nurse tank is used, keep the mixture agitated while awaiting transfer to the spray tank. Mix 2 to 4 quarts Aatrex 4 L or 2-1/2 to 5 pounds Aatrex 80W with 2/3 to 2 quarts of this product. The actual rate of Aatrex used should depend on soil type. Soils high in organic matter require higher rates than light to medium soils. Band application to Christmas Trees - Calculate the amount to be applied per acre. The band width in inches, divided by the rows spacing in inches, times the rate per acre for broadcast treatment will equal the amount needed per acre for band treatment. For example, when treating a 4-foot band over trees planted in rows of 8 feet apart, apply 1-1/4 to 2-1/4 pounds of Aatrex per acre. Please read Aatrex label(s) for additional instructions.

**Using this product and Turbo 8EC in reduced-tillage or no-till systems:** This product may be applied in combination with Turbo 8EC for the control of annual grasses and broadleaf weeds and the suppression of emerged perennial weeds when soybeans are directly seeded into a stale seedbed, cover crop or in previous crop residues. Special precautions: poor weed control and/or crop injury may result if directions are not followed. Do not use a rib-type press wheel on your no-till planter or crop injury may result. Apply at a rate of 1-1/3 pints of this product (1 pound A.I.) per acre with labeled rates of Turbo 8EC. Application is recommended 30 days prior to planting.

**Using this product and Poast as a burndown prior to planting soybeans:** For broad spectrum post-emergence weed control, a tank mix application of this product with Poast may be made for control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1-1/3 pints of this product (1 pound A.I.) per acre with labeled rates of Poast up to 30 days prior to planting.

**Using this product with Scepter, Scepter 70 DG or Squadron in preplant applications in no-till soybeans:** For broad spectrum post-emergence weed control, a tank mix application of this product with Scepter, Scepter 70 DG or Squadron herbicides may be made for the control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1/2 pound a.e. of this product (approximately 2/3 pint) per acre up to 7 days prior to planting, or 1 lb. a.e. (approximately 1-1/3 pints) per acre up to 30 days prior to planting, with labeled rates of Scepter, Scepter 70 DG or Squadron herbicides.

**Using this product and Tahoe 4E (or Alligare Triclopyr 4), Tahoe 3A (or Alligare Triclopyr 3) tank mixture for Non-Crop Areas: Broadleaf Weed Control:** Use 1-1/3 to 2-2/3 pints of this product per acre plus 2 to 6 pints Tahoe 4E (or Alligare Triclopyr 4) or 3 to 8 pints Tahoe 3A (or Alligare Triclopyr 3) per acre. For wider spectrum control of broadleaf weeds and woody plants, apply as a broadcast spray in enough water to wet all parts of the brush foliage, stem and bark. This may require 20 to 100 gallons of water per acre. Apply when broadleaf weeds are actively growing.

**Woody Plant Control Broadcast Foliar Spray:** use 2/3 gallons of this product per acre plus 1-1/2 to 3 quarts Tahoe 4E (or Alligare Triclopyr 4) or 2 to 4 quarts Tahoe 3A (or Alligare Triclopyr 3) per acre. Apply

as a broadcast spray in enough water to wet all parts of the brush foliage, stem and bark. This may require 20 to 100 gallons of water per acre. Apply when woody plants are actively growing.

**Woody Plant Control High Volume Leaf-Stem Treatment with Ground Equipment:** Mix 2/3 to 2 quarts of this product per acre plus 1-1/2 to 3 pints Tahoe 4 (or Alligare Triclopyr 4) or 2 to 4 pints Tahoe 3A (or Alligare Triclopyr 3) in enough water to wet all parts of the brush foliage, stem and bark. Higher spray volumes of 100 to 400 gallons of water per acre may be required depending on size and density of woody plants. Thoroughly wet all leaves, stems, and root collars of plants to be controlled.

**Woody Plant Control Aerial Application (Helicopter only):** Use 2/3 gallons of this product per acre plus 3 to 4 quarts Tahoe 4E (or Alligare Triclopyr 4) or 4 to 6 quarts Tahoe 3A (or Alligare Triclopyr 3) per acre. Apply in enough water to wet all parts of the brush foliage, stem and bark. This may require 10 to 30 gallons of water per acre using drift control equipment such as Microfoil boom or an effective drift control agent such as Lo-Drift Spray Additive. Use the higher volumes when plants are dense or under drought conditions.

**Using this product and Diablo® Herbicide tank mixtures for Non-Crop Areas:**

**Annual Broadleaf Weeds:** Use 1-1/3 to 2-2/3 pints of this product per acre plus 1/2 to 1-1/2 pints Diablo. For wider spectrum control of broadleaf weeds and woody plants, apply as a broadcast spray in enough water to wet all parts of the brush foliage, stem and bark. This may require 20 to 100 gallons of water per acre. Apply when broadleaf weeds are actively growing. Use the higher volumes when treating dense or tall vegetative growth.

**Perennial and Biennial Broadleaf Weeds:** Use 2 to 3 pints of this product per acre plus 1/2 to 6 pints Diablo. Apply as a broadcast spray. Apply when broadleaf weeds are actively growing but prior to flowering. Use the lower rates for biennials less than 3 inches rosette diameter. Use the higher rate for perennial weeds or for biennial weeds past the 3 inch rosette stage.

**Woody Plant Control Broadcast, High Volume, Stem Foliage or Aerial Application:** Use 2/3 gallon of this product per acre plus 2 to 8 quarts Diablo. Apply as a broadcast spray in enough water to wet all parts of the brush foliage, stem and bark (20 to 100 gallons of water per acre) or apply as a high volume stem foliage spray in enough water to thoroughly wet leaves, stems, and root collars (100 to 400 gallons of water per acre) or apply aerially in enough water to wet all parts of the brush foliage, stem and bark. This may require 10 to 30 gallons of water per acre using drift control equipment such as Microfoil Boom or an effective drift control agent such as Lo-Drift Spray Additive. Use the higher rates and volumes when plants are dense or under drought conditions.

**Using this product and Patriot®, Spyder®, and Telar®:** To improve control of some target species, this product may also be tank mixed with Patriot, Spyder, and Telar herbicides for post-emergent weed control. Tank mixes have shown improved control where resistant bio-types are present.

**NOTE:** All intended tank mix combinations should be used only in recommended areas on the same broadleaf weed species found on both labels. For application methods and other use specifications, use the most restricted limitations from labeling of both products.

**Maximum Seasonal Application Rate to non-crop and forestry sites is 4 pounds 2,4-D acid equivalent per acre per application site.**

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in its original container in a cool, dry, locked place out of the reach of children and out of direct sunlight. Do not use or store near heat or open flame.

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

**CONTAINER DISPOSAL:**

**[NONREFILLABLE CONTAINERS]**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container  $\leq$  5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available 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.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available 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.

#### **[REFILLABLE CONTAINERS]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available 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.

### **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:** Alligare, 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 must 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. To the extent consistent with applicable law, all such risks are assumed by the user.

**Limitation of Liability:** To the extent consistent with applicable law, 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. To the extent consistent with applicable law, 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.

Diablo, Oust, Spyder and Tahoe are registered trademarks of Nufarm Americas Inc.

Directa-Spray, Wobbler, Mini Wobbler, Spirometer, Lo-Drift, and Buctril are registered trademarks of Rhone-Poulenc Ag Company.

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EPA [approval date]