FOR USE ON TREE, VINE, AND BERRY - BROADLEAF WEEDS (GREATER THAN 6 INCHES IN HEIGHT AND/OR GRASSES THAT HAVE TILLERED)

General Information

IMPORTANT CROP SAFETY INFORMATION

READ BEFORE USING the product

SURMISE may be applied as a burndown treatment prior to planting or prior to emergence of any conventional or transgenic variety of canola, sweet corn, corn, cotton, olive, rice, soybean or sugar beet.

SURMISE may be applied to conventional or other transgenic cotton not tolerant to the active ingredient in SURMISE using a hooded sprayer.

Applications to trees, vines and berries should avoid contact of SURMISE solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, berries and vines. Only trunks with callused, mature brown bark should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of SURMISE with parts of trees, berries or vines other than mature brown bark can result in serious damage.

PRODUCT INFORMATION

SURMISE is a water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds in trees, vines and berries. SURMISE may be applied for potato vine desiccation.
SURMISE may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional or transgenic variety of canola, sweet corn, corn, cotton, olive, rice, soybean or sugar beet.

SURMISE is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled. Apply SURMISE to actively growing weeds as described in the Weed Control Recommendations for Row Crops section to get maximum weed control. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Necrosis of leaves and young shoots occur within 2 to 4
days after application under good growing conditions.

SURMISE is rainfast four (4) hours after application to most weed species; therefore, rainfall within four (4) hours may necessitate retreatment or may result in reduced weed control.

- Applications should be made between dawn and two hours before sunset to avoid the possibility of reduced lambsquarters and velvetleaf control.

- Consult your local Cooperative Extension Service or Albaugh, Inc. Representative for guidelines on the optimum application timing for SURMISE in your region.

- Weed control may be reduced if application is made when heavy dew, fog and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures or extended periods of cloudiness.

- To maximize weed control do not cultivate from 5 days before an application to 7 days after an application.

Integrated Weed Management

The active ingredient in SURMISE is glufosinate-ammonium, which is a glutamine synthetase inhibitor (Group 10). Integrated weed management guidelines promote an economically viable, environmentally sustainable and socially acceptable weed control program regardless of the herbicide(s) used.

The highlights of a successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.

2. Rotate crops.

3. Start the growing season with clean fields.

4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than two applications of a single herbicide mode of action to the same field in a two-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.

5. Apply listed rates of herbicides to actively growing weeds at the correct time with
the right application.

6. Control any weeds that may have escaped the herbicide application.

7. Thoroughly clean field equipment between fields.

Contact your local agronomic advisor for more specific information on integrated weed management for your area.

APPLICATION AND MIXING PROCEDURES

Do not use flood jet nozzles, controlled droplet application equipment, or air assisted spray equipment. Uniform, thorough spray coverage is important to achieve consistent weed control.

Ground Application

Refer to the Rate Tables for proper application rates. DO NOT apply when winds are gusty or when conditions will favor movement of spray particles off the desired spray target. To avoid drift and ensure consistent weed control, apply SURMISE with the spray boom as low as possible while maintaining a uniform spray pattern. SURMISE should be applied broadcast in a minimum of 10 gallons of water per acre using a minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration. Application of the spray at a 45 degree angle forward will result in better spray coverage. Under dense weed/crop canopies, a broadcast rate of 15-20 gallons of water per acre should be used so that thorough spray coverage will be obtained. DO NOT use raindrop nozzles. Boom height should be based on nozzle manufacturer recommendations. See the Spray Drift Management section of the label for additional information on proper application of SURMISE.

Aerial Application

Poor coverage will result in reduced weed control. For optimal weed control apply SURMISE in a minimum of 10 gallons per acre. Apply SURMISE using nozzles and pressures that generate MEDIUM (about 300 to 400 microns) spray droplets category as reported by the nozzle manufacturer and in accordance to ASABE S 572 based upon the selected air speed. Do not use nozzles and pressures that result in COARSE sprays. FINE sprays should also be avoided to minimize spray drift risk. See
the Spray Drift Management section of the label for additional information on proper application of SURMISE.

Limitations, Restrictions, and Exceptions

FOR USE ON TREE, VINE, AND BERRY

- Uniform, thorough spray coverage is necessary to achieve consistent weed control.

REGISTERED CROPS

- Bush berries, blueberry, currant, elderberry, gooseberry and huckleberry.

Other Berries: Lingonberry, juneberry and salal.

- Citrus – Lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron, citrus hybrids, tangor and cultivars varieties and/or hybrids of these.

- Olives

- Pome Fruit – Apple, pear, crabapple, loquat, mayhaw, quince, azarole, medlar, tejocote, cultivars varieties and/or hybrids of these.

- Stone Fruit – Apricot, cherry, peach, nectarine, plum, capulin, jujube, sloe, and cultivars varieties and/or hybrids of these.

- Tree Nuts – Almonds, filberts, hickory nuts, macadamia nuts (bush nuts), pecans, pistachios and walnuts.

- Vineyards - All grape varieties (table wine and raisins).

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity and bright sunlight improve the performance of SURMISE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest specified label use rate. Stressed conditions also include prior treatments of other contact or systemic herbicides. Do not retreat these weeds with SURMISE until sufficient regrowth has
Apply SURMISE as a directed spray to control undesirable vegetation in tree, vine, and berries listed on the label. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed under the heading Weeds Controlled in Tree, Vine, and Berry Crops. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application low use rate or environmental conditions. Repeat applications of SURMISE may be necessary to control plants generating from underground parts or seed.

Avoid contact of SURMISE solution, spray, drift, or mist with green bark, stems, or foliage, as injury may occur to trees, vines, and berries. Only trunks with callused, mature brown bark should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of SURMISE with parts of trees, vines, or berries other than mature brown bark can result in serious damage.

Application Methods for Banded Spray Applications

Banded applications may be used using the following formula on the label to calculate the amount of herbicide needed for orchard or vineyard strip sprays.

Application Methods for Spot or Directed-Spray Applications

For spot or directed-spray applications by backpack sprayers only (no mechanically pressured handgun applications allowed) mix SURMISE at 1.7 fl. oz. of product per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. DO NOT make spot or directed-spray applications to tree or vine trunk as injury may occur.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON TREE, VINE, AND BERRY CROPS:

- DO NOT apply more than 164 fl. oz. of SURMISE per acre (3 lbs. ai/A) to berry bushes and stone fruit in a 12-month period.
- DO NOT make more than 2 applications at a maximum rate of 82 fl. oz. per acre (1.5 lbs. ai/A) per application.

- DO NOT apply more than 246 fl. oz. (4.5 lbs. ai/A) of the product per acre to tree nuts, vines, pome fruit, citrus and olives in any calendar year, DO NOT make more than 3 applications at a maximum rate of 82 fl. oz. per acre (1.5 lb. ai/A) per application.

- DO NOT graze, harvest, and/or feed treated orchard cover crops to livestock.

- DO NOT apply the product through any type of irrigation system.

- DO NOT apply the product aerially to tree, berry, or vine crops.

- DO NOT apply the product within 14 days of nut, fruit, berry, or grape harvest.

- Applications to citrus, fruits, pome fruits and olives must be a minimum of 14 days apart.

- Applications to stone fruit must be a minimum of 28 days apart.

- DO NOT make spot spray applications to suckers as tree injury may occur.

WEEDS:

- Apply to annual ryegrass prior to 3 inches in height

- Suppression: Ryegrass, annual

Method

- **Broadcast/Foliar Air**
- **Broadcast/Foliar Ground**
- **Spot treatment**
- **Band**

Rates

- **field_rates 0**
- **field_rates 1**

Restricted Entry Interval
12 hours

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours with the exception of sweet corn irrigation activities which has a 4 day REI.

Timings

Apply to emerged, young, actively growing weeds