

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

March 14, 2019

Jacob S Moore Federal Regulatory Manager Makhteshim Agan of North America (d/b/a ADAMA) 3120 Highwoods Blvd, Suite 100 Raleigh, NC 27604

Subject: Notification per PRN 98-10 – Minor Label changes

Product Name: Galigan 2E

EPA Registration Number: 66222-28

Application Date: 2/5/2019 Decision Number: 548548

Dear Mr. Moore:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact please contact Manjula Unnikrishnan at 703-347-8520 or by email at <u>Unnikrishnan.manjula@epa.gov</u>.

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Sincerely,

Erik Kraft, Product Manager 24 Fungicide and Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Enclosure

Group	14	Herbicide
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# Galigan® 2E

ACTIVE INGREDIENT	% BY WT
Oxyfluorfen: 2-chloro-1- (3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl) benzene*	22.2%
OTHER INGREDIENTS:	<u>77.8</u> %
TOTAL	100.0%

Contains petroleum distillate.

# WARNING-AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

# Manufactured for:

Makhteshim Agan of North America, Inc. (d/b/a ADAMA) 3120 Highwoods Blvd., Suite 100 Raleigh, NC 27604 How can we help? 1-866-406-6262

EPA Reg. No. 66222-28

EPA Est. No.

# NET CONTENTS: \_\_\_\_ GALS SHAKE WELL BEFORE USING

FIRST AID				
<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rins</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Prosar at 1-877-250-9291 for emergency medical information.

**NOTE TO PHYSICIAN:** Contains petroleum distillate; vomiting may cause aspiration pneumonia. Symptoms of exposure through inhalation or ingestion include headache, dizziness, nausea, vomiting, and cramps. Symptoms from eye or skin contact include irritation. Remove victim from area of exposure. Wash off remaining material with plenty of water. Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically and give supportive therapy. There is no specific antidote.

Optional Text for Label Booklet: [For additional Precautionary Statements, Storage and Disposal, and Directions for Use, see inside of this booklet.] [For First Aid, Precautionary Statements, and Directions for Use, see inside of this booklet.]

NOTIFICATION

66222-28

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

03/14/2019

<sup>\*</sup>Equivalent to 2 lbs active ingredient per gallon.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with skin. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothes before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category **G** on an EPA chemical resistance category selection chart.

Mixers, loaders, and applicators using engineering controls (see engineering controls requirements below) must wear:

- Long-sleeved shirt and long pants
- · Shoes plus socks
- · Chemical-resistant gloves when mixing and loading
- Chemical-resistant apron when mixing and loading

#### All other mixers, loaders, applicators, and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton >14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when exposed to the concentrate
- · Protective eyewear

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

#### **ENGINEERING CONTROLS**

Mixers and loaders supporting aerial applications to fallow land or ground applications to corn, cotton, or soybeans must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(4)], and must:

- · wear the personal protective equipment required above for mixers/loaders using engineering controls,
- wear protective eyewear if the system operates under pressure, and
- be provided and have immediately available for use in an emergency (such as a broken package, spill, or equipment breakdown) coveralls and chemical-resistant footwear.

Handlers performing applications to corn must use an enclosed cab that meets the definition in the Worker Protection Standard for agricultural pesticides [40CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- wear the personal protective equipment required above for applicators using engineering controls,
- be provided and have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and chemical-resistant headgear, if overhead exposure,
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(6)].

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

# **USER SAFETY RECOMMENDATIONS**

#### Users should:

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

# **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. See **DIRECTIONS FOR USE** for additional restrictions. Do not contaminate water when disposing of equipment washwaters.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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.

# 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).

The REI is **24 hours** for all crops *except* the following:

Onions, garlic, and horseradish: The REI is 48 hours.

Conifer seedlings: The REI is **3 days**. Conifer trees: The REI is **6 days**.

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 enter or allow others to enter until sprays have dried.

#### **CHEMIGATION STATEMENT**

Refer to the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION** for use directions for chemigation. Do not apply this product through any irrigation system unless the instructions for chemigation are followed. If application by chemigation is not specifically listed for a crop, Galigan 2E may not be applied to that crop through irrigation systems.

#### PRODUCT USE INFORMATION

Unless otherwise directed by registered supplemental labels, follow the Directions for Use in each crop group section.

**IMPORTANT:** Read the entire **DIRECTIONS FOR USE** and the **LIMITATION OF WARRANTY AND LIABILITY** before using this product. If terms are not acceptable, return the unopened product container to the place of purchase at once.

# RESISTANCE MANAGEMENT RECOMMENDATIONS (FOR HERBICIDE)

Galigan 2E is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Galigan 2E and other Group 14 herbicides. Weed species with acquired resistance to Group 14 may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Galigan 2E or other Group14 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of Galigan 2E or other target site of action 14 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all
  registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of
  concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or
  integrated weed management recommendations for specific crops and resistant weed biotypes.

# **CULTURAL CONSIDERATIONS**

In order for Galigan® 2E to provide maximum preemergence activity: Prior to application, the bed or soil surface must be smooth and free of crop and weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide application. After application, at least one-quarter inch (1/4 inch) of irrigation or rainfall must occur within 3 or 4 weeks after application. The best results from Galigan 2E are from applications to established beds or soil surfaces that are left undisturbed during the time period for which weed control is desired. Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of Galigan 2E. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment.

# **RATE RANGES**

Select proper application rates based on soil conditions, weed spectrum, and desired period of residual weed control.

**Preemergence Application**: Where rate ranges are given, use the lower rate in the rate range on coarse textured soils with less than 1% organic matter. Use higher rates in the rate range on medium to fine textured soils, soils containing greater than 1% organic matter, or where a longer period of residual weed control is desired.

Postemergence Application: Where a rate range is given, use higher rate in rate range for heavy weed infestations, weeds in advanced stages of growth, or where a longer period of residual weed control is desired.

SPECIFIC USE RESTRICTIONS FOR INDIVIDUAL CROPS ARE FOUND UNDER DIRECTIONS FOR USE IN EACH CROP GROUP SECTION.

#### PRODUCT USE RESTRICTIONS

# USE RESTRICTIONS THAT APPLY TO ALL REGISTERED APPLICATIONS ARE LISTED BELOW:

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not contaminate irrigation water or water used for domestic purposes.
- Do not use any plants treated with Galigan 2E for feed or forage.
- Do not feed or allow animals to graze on any areas treated with Galigan 2E.
- Apply Galigan 2E only by ground application equipment except as specifically directed on this label or on other approved supplemental labeling.
- Do not apply when weather conditions favor drift. Avoid drift to all nontarget areas. Galigan 2E is phytotoxic to plant foliage.
- Thoroughly flush spray equipment (tank, pump, hoses, and boom) with clean water before and after each use. Residual Galigan 2E
  remaining in spray equipment may damage other crops. To assist in the removal of Galigan 2E residues in spray equipment, add a non-

ionic surfactant at the rate of 1 quart per 100 gallons of water during flushing.

- Use Galigan 2E only for specified purposes and at specified rates.
- Do not treat ditch banks or waterways with Galigan 2E.
- On all labeled food and/or feed crops, the maximum seasonal application rate is 1.5 lbs active ingredient (6 pints of this product) per acre
  (except tropical commodities grown in Hawaii).
- On all labeled ornamentals, the maximum application rate of 1.5 lbs active ingredient (6 pints of this product) per application is allowed.
   A total of 4.5 lbs active ingredient (18 pints of this product) is allowed per season.
- On all labeled conifer seedlings, the maximum application rate is 2 lbs active ingredient (8 pints of this product) per acre.
- Do not make over-the-top applications unless specifically allowed in CROP SPECIFIC USE DIRECTIONS.
- Do not apply Galigan 2E in enclosed greenhouses as foliage injury will result.

#### ROTATION CROP RESTRICTIONS

Do not rotate to small-grain crops (includes barley, buckwheat, corn, pearl millet, proso millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice) within 10 months following Galigan 2E treatment.

Do not direct seed any crops other than Galigan 2E -labeled crops within 60 days following a Galigan 2E treatment.

Do not transplant seedling crops other than Galigan 2E -labeled crops within 30 days following a Galigan 2E treatment.

IMPORTANT: TREATED SOIL MUST BE THOROUGHLY INCORPORATED TO A DEPTH OF 4 INCHES AFTER HARVEST (OR ABANDONING) OF THE TREATED CROP BUT PRIOR TO PLANTING OF THE ROTATIONAL CROP. FAILURE TO ACHIEVE THIS THOROUGH AND COMPLETE INCORPORATION OR TO FOLLOW THE REQUIRED MINIMUM PLANT-BACK INTERVAL MAY RESULT IN CROP INJURY, STAND REDUCTION, AND/OR VIGOR REDUCTION OF THE PLANT-BACK CROP. See specific fallow bed labeling regarding crop planting information for applications of Galigan 2E made to a fallow bed or fallow field.

# **WEEDS LISTED**

**Common Name** 

**Scientific Name** 

Scientific Name

Ageratum	Ageratum conyzoides	Mustard, Black	Brassica nigra
Amaranth, Spiny	Amaranthus spinosus	Mustard, Blue (Purple Mustard)	Chorispora tenella
Balsamapple	Momordica charantia	Mustard, Common Yellow	Brassica campestris
Barnyardgrass (Watergrass)*	Echinochloa crus-galli	Mustard, Hedge	Sisymbrium officinale
Bedstraw, Catchweed	Galium aparine	Mustard, Tumble (Jim Hill	Sisymbrium altissimum
bodoliaw, odłonwood	Ganarri aparirie	Mustard)	Gloymonam antonmam
Bittercress, Lesser	Cardamine oligosperma	Mustard, Wild	Brassica kaber
Bluegrass, Annual*	Poa annua	Nettle, Burning	Urtica urens
Buckwheat, Wild	Polygonum convolvulus	Nightshade, American Black	Solanum americanum
Burclover	Medicago hispida	Nightshade, Black	Solanum nigrum
Buttercup, Smallflower	Ranunculus abortivus	Nightshade, Hairy	Solanum sarrachoides
Buttonweed	Borreria laevis	Oats, Wild	Avena fatua
Camphorweed	Heterotheca subaxillaris	Orach, Red	Atriplex rosea
Canarygrass (Annual)	Phalaris canariensis	Oxalis (Bermuda Buttercup)	Oxalis pes-caprae
Carpetweed	Mollugo verticillata	Panicum, Fall	Panicum dichotomiflorum
Cheeseweed (Malva)	Malva parviflora	Pepperweed, Virginia	Lepidium virginicum
Clover, Red*	Trifolium pratense	Pepperweek, Yellowflower	Lepidium perfoliatum
Clover, White*	Trifolium repens	Pigweed, Prostrate	Amaranthus blitoides
Cocklebur, Common	Xanthium pensylvanicum	Pigweed, Redroot	Amaranthus retroflexus
Crabgrass, Large (Hairy)*	Digitaria sanguinalis	Pimpernel, Scarlet	Anagallis arvensis
Crotalaria	Crotalaria species	Poinsettia, Wild	Euphorbia heterophylla
Croton, Tropic	Croton glandulosus	Puncturevine	Tribulus terrestris
Cudweed, Narrowleaf	Gnaphalium falcatum	Purslane, Common	Portulaca oleracea
Eveningprimrose, Cutleaf	Oenothera laciniata	Pusley, Florida	Richardia scabra
Fiddleneck, Coast*	Amsinckia intermedia	Ragweed, Common	Ambrosia artemisiifolia
Filaree, Broadleaf	Erodium botrys	Redmaids	Calandrinia caulescens
Filaree, Redstem	Erodium cicutarium	Rocket, London	Sisymbrium irio
Filaree, Whitestem	Erodium moschatum	Ryegrass, Italian	Lolium multiflorum
Fireweed (from seed)	Epilobium angustifolium	Sage, Lanceleaf	Salvia reflexa
Flixweed	Descurania sophia	Sandbur, Field	Cenchrus incertus
Foxtail, Giant*	Setaria faberi	Sandspurry, Red	Spergularia rubra
Foxtail, Green	Setaria viridas	Sesbania, Hemp	Sesbania exaltata
Foxtail, Yellow	Setaria lutescens	Shepherdspurse*	Capsella bursa-pastoris
Geranium, Carolina	Geranium carolinianum	Sicklepod	Cassia obtusifolia
Goosegrass*	Eleusine indica	Sida, Prickly (Tea Weed)	Sida spinosa
Groundcherry, Cutleaf	Physalis angulata	Signalgrass, Broadleaf	Brachiaria platyphylla
Groundcherry, Wright	Physalis wrightii	Smartweed, Pennsylvania	Polygonum pensylvanicum
Groundsel, Common	Senecio vulgaris	Sorrel, Red (from seed)	Rumex acetosella
Henbit	Lamium amplexicaule	Sowthistle, Annual	Sonchus oleraceus
Horseweed (Marsetail)	Conyza canadensis	Speedwell, Birdseye	Veronica persica
Jimsonweed	Datura stramonium	Spurge, Garden	Euphorbia hirta
Johnsongrass, Seedling	Sorghum halepense	Spurge, Prostrate**	Euphorbia supina
Knotweed, Prostrate	Polygonum aviculare	Spurge, Spotted**	Euphorbia maculata
Ladysthumb (Smartweed)	Polygonum persicaria	Spurry, Corn	Spergula arvensis
Lambsquarter, Common	Chenopodium album	Tansymustard	Descurainia pinnata
Lettuce, Prickly (China Lettuce)	Lactuca serriola	Thistle, Bull**	Cirsium vulgare
Mallow, Little (Malva)	Malva parviflora	Thistle, Russian	Salsola kali
Mayweed (Dog Fennel)	Anthemis cotula	Velvetleaf	Abutilon theophrasti
Mile-A-Minute	Polygonum perfoliatum	Witchgrass	Panicum capillare
Miner's Lettuce	Montia perfoliata	Witchweed	Striga asiatica
Morningglory Species, Annual	Ipomoea species	Woodsorrel, Common Yellow**	Oxalis stricta
Morningglory, Ivyleaf*	Ipomoea hederacea	,	
Manajanalan Tall*	In a manage of the state of the		

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

İpomoea purpurea

Morningglory, Tall\*

**Common Name** 

# **APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION**

Do not apply this product through any irrigation system unless the instructions for chemigation are followed. If application by chemigation is not specifically listed under the specific crop use instructions, Galigan 2E may not be applied to that crop through an irrigation system.

Apply this product only through sprinkler (center pivot, continuous lateral move, side (wheel) roll, solid set, portable lateral, or low-volume (microsprinkler)), drip (trickle), or flood (basin) irrigation systems. Refer to the specific crop directions to determine which type of irrigation system to use. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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

#### SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)

For sprinkler irrigation, sufficient water applied at the beginning of the irrigation period to insure uniform wetting of the plant and/or soil surfaces. For solid set or portable lateral sprinkler systems, meter Galigan 2E at a continuous uniform rate during the middle one-third of the irrigation period to allow for uniform distribution to the vegetation and/or soil surface. Continue irrigation during the final one-third of the irrigation period to insure proper flushing of the irrigation system. For center pivot, continuous lateral move, side (wheel) roll sprinkler systems, meter Galigan 2E at a continuous uniform rate during the entire irrigation period. During sprinkler irrigation, apply sufficient water to insure water penetration to a depth of two inches.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

# FLOOD (BASIN) CHEMIGATION (SOIL DRENCH USES)

Continuously meter Galigan 2E into the water during the entire irrigation period. Agitate in the pesticide supply tank. Best weed control results, from Galigan 2E applied through flood (basin) irrigation systems, are obtained when a uniform distribution and flow of irrigation water is maintained over level land.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain functional automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and
  constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# DRIP (TRICKLE) CHEMIGATION (SOIL DRENCH USES)

Meter Galigan 2E at a continuous uniform rate during the middle one-third of the irrigation period to allow for uniform distribution to the soil surface. For best results, Galigan 2E uniformly positioned across the wetted area to help reduce the "ring effect" of weed escapes as other products begin to break down around the emitter. Continue irrigation during the final one-third of the irrigation period to insure proper flushing of the irrigation system.

To apply a pesticide using drip (trickle) chemigation, the chemigation system must meet the following specifications:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pipe and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and
  constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# CHEMIGATION CALIBRATION FOR LOW-VOLUME SPRINKLERS (MICROSPRINKLERS) AND DRIP (TRICKLE) IRRIGATION SYSTEMS

Calculation of use rate is based on wetted area around emitters-NOT on total tree or vine acres. To determine correct amount of Galigan 2E, use the following formula:

1. Treated area per each emitter=A

A=3.14 x (radius x radius)

Example: If the average distance from emitter to perimeter of wetted area measured at the soil surface is 13 inches, the

A=3.14 x (13" x 13")

A=3.14 x (169")

A=530.7 square inches

2. The area in square feet wet in each acre=B

B= A x emitters/acre

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Example: If there are 300 emitters per acre, then B= 530.7 x 300 = B=1105.6 square feet wetted per acre

 The total area (in square feet) wet by your system=C C=B x acres covered by system Example: If the system covers 20 acres, then C=1105.6 square feet per acre x 20 Acres C=22.112 square feet wetted by system

Amount of Galigan 2E to inject=S
 Rate per treated acre of Galigan 2E =R
 S= C x R= quarts of Galigan 2E
 43.560

Example: if the desired application rate per treated acre is 1 quart of Galigan 2E, then  $S=\underline{22,112}$  x 1.0 = S = 0.507 quarts of Galigan 2E must be injected into system 43.560

NOTE: Select the proper rate based on weed spectrum and length of control.

# CHEMIGATION CALIBRATION FOR FLOOD (BASIN) IRRIGATION SYSTEMS

- 1. Determine acreage covered by flood irrigation.
- Determine time required to irrigate area.
- 3. Fill metering solution tank with water and adjust flow rate to use contents over the predetermined time interval required.
- 4. Determine the amount of Galigan 2E required to treat area.
- 5. Add the specified amount of Galigan 2E and water (if necessary) to bring solution to the amount required to apply the proper rate for the time interval established during calibration.
- Meter Galigan 2E as specified on the label.

# CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

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

- Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or
  the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from
  the public water system may be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break
  (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the
  fill pipe.
- The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump
  motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is
  adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Upon completion of Galigan 2E application, remove scale, pesticide residues, and other foreign matter from the supply tank and entire injector system. Flush thoroughly with clean water.

# **MIXING DIRECTIONS**

Fill the spray tank at least one-third full of clean water. With the pump and agitator running, add the specified amount of herbicides to the spray tank. The order of addition to the spray tank is wettable powders first, flowables second, and liquids last. Complete filling of the spray tank with water. For all applications of Galigan 2E (except garlic and onions where postemergence weed control is desired, add 2 pints of an 80% active nonionic surfactant cleared for application to growing crops per each 100 gallons of spray. Add 4 pints of an 80% active nonionic surfactant per 100 gallons of spray to enhance postemergence activity when hard water (greater than 600 ppm) is used as a carrier. Maintain agitation until spraying is completed.

# **Tank Mixing Precautions**

- Read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- Do not exceed specified application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this
  product unless the label of either tank mix partner specifies the maximum dosages that may be used.

Compatibility testing for tank mixing partners: Galigan 2E may also be used in tank mixtures. Test compatibility of the intended tank mixture before adding Galigan 2E to the spray or tank mix. Add proportionate amounts of each ingredient to a pint or quart jar, cap, shake, and let set 15 minutes. Formation of precipitates that do not readily redisperse indicates an incompatible mixture that must not be used.

Calibrate spray equipment carefully before each use. Dosages listed on this label are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches) Row Width (in inches) Χ

Rate per Broadcast Acre

=

Amount Needed per Acre for Banded Application

#### SPRAY DRIFT BUFFER RESTRICTIONS

A 25 ft. vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish ponds.

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreational areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer.

Use coarse spray according to ASAE 572 definition for standard nozzles or VMD of 475 microns for spinning atomizer nozzles.

The applicator also must use all other measures necessary to control drift.

#### **AERIAL APPLICATION**

Use aerial boom equipment designed for use with herbicides and a minimum spay volume of 10 gallons per acre (5 gallons per acre if tank mixed with glyphosate). Do not aerially apply Galigan 2E unless crop-specific use directions allow and provide directions for aerial application.

**Avoid Drift:** Exercise extreme care to prevent spray drift that could result in damage to other crops or desirable vegetation. Use the following guidelines when aerial applications are to be made:

- 1. Do not apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.
- When wind speeds are 5 mph or less, maintain a minimum downwind buffer zone of at least 1/2 mile from all crops and desirable vegetation, except for the following:

Maintain a minimum download buffer zone of:

- 150 feet from dormant treefruit, dormant vines and overwintering sugar beets.
- 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets, and non-targeted vegetable fallow beds.
- When wind speeds are between 5 and 10 mph, downwind buffer zones in excess of those listed above are suggested.
- 4. For upwind and side borders, maintain a minimum buffer zone of 150 feet from any non-targeted vegetable fallow bed, crop, or desirable vegetation.
- 5. This use if a drift control agent may be required by local regulations. However, the drift control agent may decrease the weed control activity.

# **Important**

Aerial applicators must be familiar with this label and follow the use precautions. Spraying Galigan 2E in a manner other than as specified is done at the user's risk. Users are responsible for all loss or damage that result from such spraying. In addition, aerial applicators must follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, apply the most restrictive situations to avoid drift hazards.

**Spray Drift Management (Aerial Application)**: Avoiding spray drift at the application site is the responsibility of the applicator. The potential for spray drift is controlled by the interaction of many equipment-andweather-related factors. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

# **CROP SPECIFIC USE DIRECTIONS**

# **ARTICHOKES (GLOBE)**

#### Post-Directed Spray Product Information

Galigan 2E is an effective herbicide for postemergence and preemergence control of certain broadleaf weeds in artichokes. Direct Galigan 2E towards the winter ditch, levees, or flat rows between the artichoke rows. Artichoke fronds receiving accidental spray or drift will be injured. Over-the-top applications may exhibit severe injury to the foliage and flower bud.

# Dosage

Use Galigan 2E as a post-directed application at 4 to 6 pints (1.0 to 1.5 lbs active) per acre. Optimum control is achieved when two applications of Galigan 2E are applied. Make the initial application to susceptible weed seedlings (up to 8-leaf stage). Make a second application 8 to 10 weeks later. Good results may be achieved when a single application of 6 pints (1.5 lbs active) of Galigan 2E is applied to susceptible weed seedlings (up to 8-leaf stage). Do not apply more than 6 pints (1.5 lbs active) of Galigan 2E per treated acre per season as a result of a single application or multiple applications. Do not apply within 5 days of harvest.

# **Weeds Controlled Preemergence**

Cheeseweed (Malva) Grounsel, Common Lambsquarters, Common Mustard, Common Yellow Oxalis (Bermuda Buttercup)\* Shepherdspurse Sowthistle, Annual

\*Suppression

# **Weeds Controlled Postemergence**

Cheeseweed (Malva) Grounsel, Common Mustard, Common Yellow Nettle, Burning Oxalis (Bermuda Buttercup) Shepherdspurse Sowthistle, Annual

### Timing and Method of Application

Make treatments after completion of the ditching operation. Apply Galigan 2E in a minimum of 40 gallons of water per acre depending upon density of emerged weeds. Increase spray volume as weed height and density increase. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use. Direct spray towards the winter ditch, levees, or flat rows between the artichoke rows. ARTICHOKE FRONDS RECEIVING ACCIDENTAL SPRAY OR DRIFT WILL BE INJURED.

# Artichoke (Globe)

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 6 pints (1.5 lbs active) of Galigan 2E per treated acre per season as a result of a single application or multiple applications.
- Do not apply Galigan 2E within 5 days of harvest.
- Avoid direct spray or drift contact of Galigan 2E with artichoke flowers or buds as severe injury may result.
- Do not apply Galigan 2E to artichoke plantings within 60 days after cutting back or transplanting.

#### BROCCOLI, CABBAGE, CAULIFLOWER

# Pre-Transplant (Preplant) Application for Preemergence Broadleaf Weed Control **Product Information**

Galigan 2E is a selective herbicide for preemergence control of certain annual broadleaf weeds. Applications must be made after completion of soil preparation but prior to transplanting of broccoli, cabbage, or cauliflower plants. Complete transplanting with minimal soil disturbance. Leave treated soil surfaces undisturbed after transplanting to obtain greatest benefit of Galigan 2E on susceptible annual broadleaf weeds during the time period for which weed control is desired. However, timely cultivations after weed emergence will assist in weed control. Pretransplant applications of Galigan 2E in broccoli, cabbage, and cauliflower can result in a temporary initial crop response (leaf cupping or crinkling). Crop response may be enhanced if crop leaves come in direct contact with treated soil. Crops rapidly outgrow this condition and develop normally. Severe crop response can result from the use of transplants that are under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, or storage conditions. The use of young (less than 5 weeks old), extremely succulent transplants grown in containers, less than 1-inch square, can increase the severity of crop injury. Hardening off, increasing the age of transplants, or increasing the size of the rooting container will lessen the possibility and/or severity of crop injury.

#### Dosage

Use Galigan 2E at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. Use the lower rate (1 pint per acre) for preemergence weed control on coarse-textured soils with less than 1% organic matter. Use the 2 pint per acre rate for preemergence weed control on medium- to finetextured soils or soils containing greater than 1% organic matter.

Galigan 2E will assist in early season annual grass control. However, Galigan 2E must not be a basic portion of the grass herbicide program. Use a planned herbicide program for preemergence or postemergence grass control. Research has shown that severe crop injury can occur if Galigan 2E is applied to a field that has had an acetanilide herbicide (Parallel®, Lasso®, Ramrod®) application during the current growing season; therefore, do not apply Galigan 2E following application of an acetanilide herbicide.

# Weeds Controlled\*

Carpetweed Pigweed, Redroot

Purslane, Common Smartweed, Pennsylvania

\*Applications of Galigan 2E to muck soils may result in partial control or suppression of the weeds listed.

Galigan 2E at the rate of 1 to 2 pints (0.25 to 0.5 lbs active) per acre may provide partial control or suppression of galinsoga, common lambsquarters, and wild mustard.

# Method of Application

Mix Galigan 2E thoroughly with clean water at specified concentrations and apply in a minimum of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan nozzles at 20 to 40 psi. Do not exceed 40 psi. Accurately calibrate spray equipment prior to each use. Thoroughly flush the spray equipment (tank, hose, pump, boom) with water before and after each use. Residual Galigan 2E remaining in the spray equipment may damage other crops.

AVOID DRIFT TO ALL OTHER CROPS AND NONTARGET AREAS. DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT. GALIGAN 2E IS PHYTOTOXIC TO PLANT FOLIAGE.

# Broccoli, Cabbage, Cauliflower

Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 2 pints (0.5 lbs active) Galigan 2E per treated acre per season.
- Do not apply Galigan 2E preemergence to direct-seeded broccoli, cabbage, or cauliflower.
- Do not apply Galigan 2E post-transplant or postemergence (over-the-top) to broccoli, cabbage, or cauliflower.
- FOR FIELD USE ONLY. Do not apply Galigan 2E in an enclosed greenhouse structure as injury to plant foliage may result.

# **CACAO (BEARING AND NON BEARING) HAWAII ONLY**

# **Product Information**

Galigan 2E is effective as a preemergence herbicide when used alone for the control of certain annual broadleaf weeds in bearing and nonbearing cacao plantings. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Do not disk treat berms or soil surfaces or disturb in any manner as the herbicidal effectiveness of Galigan 2E may be decreased. Seedling weeds are controlled as they come in contact with soil-applied herbicides during emergence.

# Galigan 2E Used Alone

# Dosage

Use Galigan 2E for preemergence and postemergence control of susceptible weeds at 2 to 8 pints (0.5 to 2.0 lbs active) per broadcast acre when directed to the orchard floor beneath cacao plants or at a dosage of up to 4 pints per acre as a pre-transplant application. For directed spray applications, cacao transplants must be healthy and of suitable size for field transplanting. Avoid spray contact with cacao foliage as injury may result. Dosages listed are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches)
Row Width (in inches)

Χ

Rate per Broadcast Acre Amount Needed per Acre for Banded Application

**Weeds Controlled Preemergence** 

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre.

Ageratum Buttonweed Crotalaria Purslane, Common Spurge, Garden

**Weeds Controlled Postemergence** 

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre. Applications to weeds beyond the four-leaf stage may result in partial control.

Purslane, Common Spurge, Garden

**Timing and Method of Application** 

Do Not Apply Preplant Or Preemergence To Direct-Seeded Cacao. Treatments Can Be Made To Established Cacao Or As A Pre-Transplant Or Recently Transplanted Cacao.

Apply treatments only to healthy cacao stock (as determined by standard commercial growing practice). Care must be taken to prevent direct spray contact with foliage. Cacao foliage receiving accidental spray or drift may be injured. As a preemergence or postemergence treatment to weeds, apply a minimum of 15 gallons of water per acre. Use higher volumes to assure adequate coverage in high densities of emerged weeds or heavy trash. Direct Galigan 2E to the soil and the base of the tree. Use a low-pressure sprayer equipped with a breakaway boom and flat fan or off-center (OC) nozzles. Use spray shields in young trees. Calibrate spray equipment carefully before each use.

# Cacao-Bearing and Nonbearing-Hawaii Only Specific Use Restrictions

In addition to the following, also observe the PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 8 pints (2.0 lbs active) per broadcast acre of Galigan 2E in a single application or 24 pints (6.0 lbs active) per broadcast acre per year.
- Do not apply Galigan 2E within one (1) day before harvest.
- Direct spray toward the base of the trees. Avoid spray contact with foliage.
- Do not apply preplant or preemergence to direct-seeded cacao.

# **CITRUS (NONBEARING)**

Including To Calamondin, Chironja, Citrus Citron, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Pummelo, Satsuma Mandarin, Sour Orange, Sweet Orange, Tangelo, Tangerine, Tangor

FOR USE ONLY IN PERMANENTLY ESTABLISHED GROVES IN ARIZONA, CALIFORNIA, FLORIDA, LOUISIANA, AND TEXAS.

#### **Product Information**

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in specified tank-mix combinations for the control of certain annual broadleaf weeds in nonbearing citrus plantings. Galigan 2E may be applied to newly planted trees or to young trees that will not bear fruit within one year.

The most effective postemergence weed control is achieved when Galigan 2E is applied to seedling weeds at the specified growth stage. For postemergence control of certain grassy and broadleaf weeds, a tank mix of Galigan 2E with paraquat (Parazone® 3SL) or glyphosate (Glyphogan®) can be used.

For residual grass control in citrus, a tank mixture of Galigan 2E with Devrinol®, simazine, Solicam®, or Oryzalin 4 AS can be used. Contact herbicides such as paraquat (Parazone 3SL) or glyphosate (Glyphogan) may also be added to the tank mixture. Check individual product labels to determine suitability and use rates for various crops.

# Galigan 2E Used Alone

#### Geographic Use Directions Arizona and California

Dosage

Use Galigan 2E for postemergence control at 2 to 6 pints (0.5 to 1.5 lbs active) per broadcast acre. For preemergence control of susceptible weeds, use 6 pints (1.5 lbs active) per broadcast acre.

# **Weeds Controlled Preemergence**

Apply 6 pints (1.5 lbs active) of Galigan 2E per broadcast acre.

Burclover Cheeseweed (Malva) Fiddleneck, Coast Filaree, Braodleaf Filaree, Redstem Filaree, Whitestem Groundsel, Common Henbit

Knotweed, Prostrate Lambsquarters, Common Lettuce, Prickly Pigweed, Redroot Purslane, Common Redmaids Rocket, London Shepherdspurse Sowthistle, Annual Spurge, Prostrate Spurge, Spotted

#### Weeds Controlled Postemergence (weeds up to 4 inches high)

Apply 2 to 6 pints (0.5 to 1.5 lbs active) of Galigan 2E per broadcast acre. Applications to weeds beyond this 4-inch stage may result in partial control

Cheeseweed (Malva)

Fiddleneck, Coast

Filaree, Broadleaf\*

Filaree, Redstem\*

Filaree, Whitestem\*

Groundsel, Common

Miner's Lettuce

Nettle, Burning

Pigweed, Redroot

Redmaids

Shepherdspurse

Sowthistle, Annual

Henbit

# Florida, Louisiana, and Texas

#### Dosage

Use Galigan 2E for postemergence control at 2 to 6 pints (0.5 to 1.5 lbs active) per broadcast acre. For preemergence control of susceptible weeds, use Galigan 2E at 6 pints (1.5 lbs active) per broadcast acre.

# **Weeds Controlled Preemergence**

Apply 6 pints (1.5 lbs active) of Galigan 2E per broadcast acre.

Cudweed, Narrowleaf
Pointsettia, Wild
Eveningprimrose, Cutleaf\*
Pusley, Florida
Groundcherry, Cutleaf
Sida, Prickly (Teaweed)
Lambsquarters, Common
Nightshade, American Black
Nightshade, Black
Sowthistle, Annual
Nightshade, Black
Spurge, Prostrate
Pepperweed, Virginia
Pigweed, Redroot

\*Highest rate and/or multiple applications may be required for acceptable control. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre during any 12-month period as a result of multiple applications.

#### **Weeds Controlled Postemergence**

Apply 2 to 6 pints (0.5 to 1.5 lbs active) of Galigan 2E per broadcast acre. Use the lower rate for the control of susceptible seedling weeds in the early postemergence stage up to the 4-leaf stage. Use the higher rate (1.5 lbs active) for weeds up to the 6-leaf stage. Applications to weeds beyond the 6-leaf stage may result in partial control.

Balsamapple Pepperweed, Virginia Cudweed, Narrowlead\* Pigweed, Redroot Eveningprimrose, Cutleaf\*\* Poinsettia, Wild Groundcherry, Cutleaf Purslane, Common Groundcherry, Wright Pusley, Florida Lambsquarters, Common Sida Prickly (Teaweed) Smartweed, Pennsylvania Morningglory, Annual Nightshade, American Black Sowthistle, Annual

Nightshade, Black

# All States-Arizona, California, Florida, Louisiana, and Texas

#### **Timing and Method of Application**

Direct Galigan 2E to the soil and the base of trees. Avoid direct spray contact on the citrus foliage. Use a low-pressure sprayer equipped with a breakaway boom and flat fan nozzles. An off-center (OC) nozzle positioned at the end of the boom may be desired.

# Spray Volume

Weed StageGallons of Water Per AcrePreemergence40 or morePostemergence up to 4-inch or 4-leaf stage40 or moreExceeding 4-inch or 4-leaf stage100 or more

# Tank Mixes With Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.

# Dosage

For preemergence control of susceptible grassy and broadleaf weeds in citrus plantings, a tank mixture of Galigan 2E with Devrinol®, simazine, Solicam®, or Oryzalin 4 AS can be applied. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels. For postemergence control of susceptible grassy and broadleaf weeds, a tank mixture of paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E or combinations of Galigan 2E plus Devrinol, simazine, Solicam, or Oryzalin 4 AS can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

#### **Weeds Controlled**

In addition to the weeds controlled by Galigan 2E used alone, control of susceptible weeds listed on the respective labels for the following products is also obtained:

Devrinol Simazine\*
Paraquat (Parazone 3SL) Solicam
Glyphosate (Glyphogan) Oryzalin 4 AS

\*In addition, provides preemergence control of horseweed (marestail).

# Citrus (Nonbearing)

<sup>\*</sup> Galigan 2E at the 6-pint rate (1.5 lbs active) will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

<sup>\*</sup>Maximum 0.5 inch diameter.

<sup>\*\*</sup>Highest rate and/or multiple applications may be required for acceptable control. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre during any 12-month period as a result of multiple applications.

#### **Specific Use Restrictions**

In addition to the following, also observe the PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Apply Galigan 2E only to nonbearing citrus trees.
- Do not apply more than 6 pints of Galigan 2E (1.5 lbs active) per broadcast acre in a single application or more than 6 pints of Galigan 2E during any 12-month period as a result of multiple applications.
- Apply Galigan 2E or any of the combinations specified on this label only to healthy growing trees.
- Do not apply during periods of new foliage growth. Make applications after foliage has fully expanded and hardened off.
- Direct spray toward the base of trees. Avoid direct spray contact on the citrus foliage.
- Do not harvest within 365 days (one year) of last application.

# CLARY SAGE NORTH CAROLINA ONLY

#### **Product Information**

Galigan 2E is a selective herbicide which can be used for the control of henbit (Lamium amplexicaule) in Clary Sage (Salvia sclarea) used in the essence industry.

Time applications to control henbit during the winter season to start shortly after the first flush of henbit is in the 2- to 4-leaf stage. Additional applications may be required to control subsequent weed flushes through the spring season. Clary Sage may respond to the topical application with some marginal leaf burn, recovery is rapid. After spraying, henbit will stop growing and slowly die.

# Dosage

Apply Galigan 2E at a rate of 0.5 to 1 pint per acre (0.125 to 0.25 lbs active). Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in 20 to 50 gallons of water per acre. Apply at 20 to 40 psi.

# Clary Sage - North Carolina Only

Specific Use Restrictions

In addition to the following, also observe the PRODUCT USE RESTRICTIONS listed at the beginning of this label.

• Do not apply more than 6 pints of Galigan 2E (1.5 lbs active) per broadcast acre per year.

# COFFEE (BEARING AND NONBEARING) HAWAII ONLY

#### **Product Information**

Galigan 2E is effective as a preemergence herbicide when used alone for the control of certain annual broadleaf weeds in bearing and nonbearing coffee plantings. For postemergence control of certain grassy and broadleaf weeds, a tank mixture of either paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E can be applied to seedling weeds. Check individual product labels to determine suitability and use rates for crop.

# Galigan 2E Used Alone

#### Dosage

For preemergence control of susceptible weeds, apply Galigan 2E at 2 to 8 pints (0.5 to 2.0 lbs active) per broadcast acre as a preemergence application directed to the orchard floor beneath coffee plants or at a dosage of up to 4 pints per broadcast acre as a pre-transplant application. For directed spray applications, coffee transplants must be healthy and of suitable size for field transplanting. Avoid spray contact with coffee foliage as injury may result. Galigan 2E may be applied postemergence (over-the-top) to dormant coffee transplants. Applications must only be made prior to bud break to avoid possible phytotoxicity to the coffee foliage. Over-the-top applications made after buds start to swell may result in injury to the coffee plant. Dosages listed on this label are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches)
Row Width (in inches)

X

Rate per
Broadcast Acre

=

Amount Needed per Acre
for Banded Application

#### **Weeds Controlled Preemergence**

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre.

Agaratum Purslane, Common Spurge, Garden Crotalaria

#### **Weeds Controlled Postemergence**

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre. Applications to weeds beyond the four-leaf stage may result in partial control.

Purslane, Common Spurge, Garden

# **Timing and Method of Application**

# DO NOT APPLY PREPLANT OR PREEMERGENCE TO DIRECT-SEEDED COFFEE

Apply treatments only to healthy coffee stock (as determined by standard commercial growing practices). Care must be taken to prevent direct spray contact with foliage. Coffee foliage receiving accidental spray or drift may be injured. As a preemergence or postemergence treatment to weeds, apply a minimum of 30 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Direct Galigan 2E to the soil and the base of the tree. Use a low-pressure sprayer equipped with a breakaway boom and flat fan or off-center (OC) nozzles. Calibrate spray equipment carefully before each use.

# Tank Mixes With Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

For postemergence control of susceptible grassy and broadleaf weeds in coffee plantings, a tank mixture of Galigan 2E with either glyphosate (Glyphogan) or paraquat (Parazone 3SL) may be applied as a directed spray. Apply at specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

# **Weeds Controlled Postemergence**

In addition to the weeds controlled by Galigan 2E used alone, control of susceptible weeds listed on the respective labels for the following products is also obtained.

paraquat (Parazone 3SL)

glyphosate (Glyphogan)

# Bearing and Nonbearing Coffee - Hawaii Only Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply preplant or preemergence to direct-seeded coffee.
- Direct spray toward the base of the trees. Avoid spray contact with foliage.
- Galigan 2E may be applied as a postemergence (over-the-top) application to dormant transplants. Do not apply over-the-top to coffee transplants after buds start to swell.
- Apply Galigan 2E or any of the combinations specified on this label only to healthy growing trees/transplants under standard commercial growing practices.
- For pretransplant application, do not apply more than 4 pints (2 lbs active) per broadcast acre of Galigan 2E in a single application.
- For postemergence to weeds and dormant transplants, do not apply more than 8 pints (2.0 lbs active) per broadcast acre of Galigan 2E in a single application or 24 pints (6.0 lbs active) per broadcast acre per year.
- For other uses besides a pretransplant application, do not apply more than 8 pints (2.0 lbs active) per broadcast acre of Galigan 2E in a single application or 24 pints (6.0 lbs active) per broadcast acre per year for all applications.
- Do not apply Galigan 2E within one (1) day of harvesting.
- Applications of Galigan 2E during periods of rapid new foliage growth may cause injury.

# CONIFER SEEDBEDS, TRANSPLANTS, CONTAINER STOCK AND SELECTED FIELD-GROWN DECIDUOUS TREES

# **Product Information**

Galigan 2E is effective as a preemergence and/or postemergence herbicide for the control of certain annual grassy and broadleaf weeds in conifer seedbeds, transplants, and container stock, and in selected field-grown deciduous trees. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Do not disturb treated soil surfaces as the herbicidal effectiveness of Galigan 2E may be decreased. Seedling weeds are controlled during emergence as they come in contact with the soil-applied herbicide. The most effective postemergence weed control is achieved when Galigan 2E is applied to seedling weeds less than 4 inches in height.

Occasionally after the use of Galigan 2E, a spotting, crinkling, or flecking may appear on leaves of conifer and deciduous species. Leaves that receive direct or indirect (drift) spray contact may be injured. The conifer and deciduous species typically outgrow this condition rapidly and develop normally.

**IMPORTANT:** When applied as directed, the conifer and selected deciduous species listed on this label have shown tolerance to Galigan 2E. It is impossible, however, to evaluate this product on all varieties, biotypes, and cultivars of listed species on this label or under all possible growing conditions. Exercise reasonable judgment and caution with this product. Until familiar with results under user growing conditions, limit application of this product to a few plants in a small treated area to determine plant tolerance and extent of injury if such occurs prior to initiating large-scale applications.

# **Weeds Controlled**

When Galigan 2E is applied preemergence or postemergence at specified dosages and weed stages, the following grasses and broadleaf weeds are controlled:

Barnyardgrass\*
Bedstraw, Catchweed
Bittercress, Lesser
Bluegrass, Annual\*
Buckwheat, Wild
Burclover
Carpetweed
Clover, Red\*
Clover, White\*
Cocklebur, Common
Crabgrass, Large\*
Fildleneck, Coast\*
Filaree, Broadleaf
Filaree, Redstem

Fireweed (from seed) Flixweed Foxtail, Giant\* Goosegrass\*

Groundcherry, Cutleaf Groundcherry, Wright Groundsel, Common

Henbit Jimsonweed Knotweed, Prostrate

Ladysthumb
Lambsquarters. Common

Lettuce, Prickly
Mallow, Little
Mayweed
Miner's Lettuce
Morningglory, Ivyleaf\*
Morningglory, Tall\*

Mustard, Blue Mustard, Tumble Mustard, Wild Nettle, Burning Nightshade, Black Nightshade, Hairy Oats, Wild Orach. Red

Pepperweed, Yellowflower Pigweed, Prostrate Pigweed, Redroot Pimpernel, Scarlet Purslane, Common Redmaids Rocket, London Sandspurry, Red Shepherdspurse\*

Sida, Prickly
Smartweed, Pennsylvania
Sorrel, Red (from seed)
Sowthistle, Annual
Speedwell, Birdseye
Spurge, Prostrate\*\*
Spurge, Spotted\*\*
Spurry, Corn
Tansymustard
Thistle, Bull\*\*
Thistle, Russian
Velvetleaf

Woodsorrel, Yellow\*\*

Witchgrass

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

\*\*Preemergence control only.

Galigan 2E is most effective when applied preemergence to annual grasses. Make postemergence applications to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% (2 pints per 100 gallons of spray solution) of an 80% active nonionic surfactant, cleared for application on growing crops, enhances the Galigan 2E activity on emerged weeds. When determining an appropriate use rate where a range of rates is provided, use higher rates where heavy weed pressure is anticipated, or where medium and fine soil textures exist and high organic matter soils are present.

#### **CONIFER SEEDBEDS**

To assist in the establishment of conifer seedbeds, Galigan 2E can be applied as a preemergence application following seeding. Delay postemergence applications until a minimum of 5 weeks after emergence of the conifer seedlings. During periods of cool, cloudy weather, make certain that seedlings have hardened off prior to spraying.

Conifers are tolerant to preemergence and postemergence applications of Galigan 2E. Galigan 2E will provide both postemergence and residual preemergence control of many broadleaf weeds and annual grass species.

#### **CONIFER SPECIES**

Galigan 2E may be applied to conifer seedbeds of species including the following:

Common Name **Scientific Name** Douglas Fir Pseudotsuga menziesii Fir Fraser Abies fraseri Grand Abies grandis Abies procera Noble Hemlock Eastern Hemlock Tsuga canadensis Western Hemlock\* Tsuga heterophylla Pine Austrian Pinus nigra Eastern White Pinus strobus Himalayan Pinus wallichiana Jack Pinus banksiana Loblolly Pinus taeda Lodgepole Pinus contorta Pinus palustris Longleaf Monterev Pinus radiata Pinus mugo Mugho Ponderosa Pinus ponderosa Scotch Pinus sylvestris Shortleaf Pinus echinata Slash Pinus elliottii Virginia Pinus virginiana Spruce Blue Picea pungens **Dwarf Alberta** Picea glauca conica

#### Preemergence Dosage

Norway

Sitka

Apply 1 to 4 pints (0.25 to 1.0 lbs active) of Galigan 2E per broadcast acre as a preemergence application prior to conifer emergence. Where grassy weeds are present, apply Galigan 2E at a rate of 2 to 4 pints (0.5 to 1.0 lbs active) per broadcast acre. In known areas of high weed competition, apply Galigan 2E at a rate of 4 pints (1.0 lbs active) per broadcast acre.

Picea abies

Picea sitchensis

# **Timing and Method of Application**

Mix Galigan 2E thoroughly with clean water at specified concentration and apply at 20 to 40 psi in a minimum of 20 gallons of water per treated acre. Broadcast to beds and irrigate prior to weed emergence with 1/2 to 3/4 inch of sprinkler irrigation.

# Postemergence Dosage

Apply 1 to 2 pints (0.25 to 0.5 lbs active) of Galigan 2E per broadcast acre with each postemergence application. Depending on subsequent weed flushes, multiple applications may be necessary to achieve season-long weed control.

# **Timing and Method of Application**

Delay postemergence applications until a minimum of 5 weeks after emergence of conifer seedlings. During periods of cool, cloudy weather, make certain that seedlings have hardened off prior to spraying. Make application to seedling weeds (less than 4 inches in height). Mix Galigan 2E thoroughly with clean water at specified concentration and apply as a broadcast application at 20 to 40 psi in a minimum of 20 gallons of water per treated acre.

Sprinkler Chemigation: If Galigan 2E is to be applied via sprinkler irrigation (center pivot), follow the method of application directions listed for sprinkler chemigation. Additionally, for application using center pivot irrigation systems, apply specified dosage of Galigan 2E per acre as described above and meter Galigan 2E at a continuous uniform rate during the entire irrigation period to allow for uniform distribution to the vegetation and soil surface. Follow all directions given in the section entitled APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION when making applications using sprinkler irrigation systems.

# CONIFER TRANSPLANTS AND CONTAINER STOCK

# (INCLUDES 2-0 SEEDLING AND CHRISTMAS TREE PLANTINGS)

Many container-grown conifers and conifer transplants are tolerant to preemergence and postemergence applications of Galigan 2E. Applied postemergence, Galigan 2E will provide both postemergence and preemergence control of many broadleaf weeds and grasses listed in the **WEEDS CONTROLLED SECTION** above. Apply postemergence applications before bud break or after foliage has had an opportunity to

<sup>\*</sup>Not registered for use in California.

harden off. Conifers may be transplanted from seedbeds and sprayed directly providing bud break has not occurred.

The following conifer species in addition to species listed under the **CONIFER SEEDBED** section have been shown to be tolerant to Galigan 2F.

**Arborvitae** 

Thuja occidentalis Thuja orientalis

Juniper

Juniperus chinensis Juniperus horizontalis Juniperus procumbens Juniperus sabina Juniperus scopulorum **Red Cedar** 

Juniperus virginiana Western Hemlock Tsuga heterophylla Yew

Taxus species

#### Dosage

For preemergence or postemergence weed control, apply 4 to 8 pints (1.0 to 2.0 lbs active) of Galigan 2E per broadcast acre.

# **Timing and Method of Application**

For optimum weed control, make preemergence applications immediately after transplanting seedlings or to weed-free container stock. Make postemergence applications to weeds less than 4 inches in height. Two applications may be necessary in fall-transplanted conifer fields for season-long weed control. The addition of 0.25% (2 pints per 100 gallons of spray solution) of an 80% active nonionic surfactant, cleared for application to growing crops, enhances Galigan 2E activity on emerged weeds. Galigan 2E must be applied only to conifer transplants prior to bud break or after foliage has had an opportunity to harden off. Thoroughly mix with clean water at specified concentration and apply at 20 to 40 psi in a minimum of 20 gallons of water per treated acre. Spray over the top of transplants. Heavy rainfall immediately following application to emerged weeds may reduce effectiveness.

#### **Tank Mixtures for Selected Field-Grown Conifers**

In addition to the weeds controlled by Galigan 2E used alone, tank mixes with other preemergence or postemergence herbicides registered for this use may provide a broader spectrum of weed control.

Galigan 2E may be tank mixed with products containing the following active ingredients registered for use in conifer plantings:

Glyphosate Pendimethalin
Napropamide Prodiamine
Oryzalin Sethoxydim

Determine the additional weed species to be controlled, and based on label claims, select the product(s) which would give effective control of the targeted weed(s). When using tank mixes of two or more products, use conditions must be in accordance with the more (most) restrictive of the label limitations and precautions of the mixing partners.

IMPORTANT: Read and follow container labels of tank-mix partners and use as directed by labeling. Follow the most restrictive labeling.

# Conifer Seedbeds, Transplants and Container Stock Specific Use Restrictions

In addition to the following, also observe **PRODUCT USE RESTRICTIONS** listed at the beginning of this label.

- Conifer Seedbeds: Do not apply more than 8 pints (2.0 lbs active) of this product per broadcast acre per year.
- Conifer Transplants and Container Stock: Do not apply more than 8 pints (2.0 lbs active) of this product in a single application or more than 16 pints per acre per year.
- NOT FOR CONIFER RELEASE IN FOREST MANAGEMENT PROGRAMS OR FOR FOREST REGENERATION APPLICATIONS.
- Do not apply Galigan 2E in an enclosed greenhouse structure as injury to plant foliage may result.
- Do not store or transport treated container stock in an enclosed structure until completion of 4 irrigations (minimum 21 days) as injury to non-labeled plants may occur.
- Always apply Galigan 2E only to healthy conifer stock. Do not apply Galigan 2E to conifers that are under stress from excessive fertilizer
  or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury as severe injury may
  result.
- Do not make over-the-top applications during periods of active conifer growth. Apply only before bud break or after new terminal growth has hardened off
- Do not graze or feed livestock forage cut from areas treated with Galigan 2E.

# **SELECTED FIELD-GROWN DECIDUOUS TREES**

Many field-grown deciduous trees are tolerant to applications of Galigan 2E directed to the soil and base of the plant. Galigan 2E will provide both preemergence and postemergence control of many broadleaf weeds and grasses.

# DECIDUOUS TREE SPECIES

Common Name	Scientific Name	Common Name	Scientific Name
Almond**	Prunus spp.	Nut, Macadamia**	Macadamia ternifola
Apple**	Malus X domestica	Oak, Chestnut	Quercus prinus
Apricot**	Prunus spp.	Oak, Pin	Quercus palustris
Ash, Green	Fraxinus pennsylvanica	Oak, Red	Quercus rubra
Ash, White	Fraxinus americana	Oak, Water	Quercus nigra
Birch, River	Betula nigra	Oak, Willow	Quercus phellos
Cherry**	Prunus spp.	Olive, Russian	Elaeagnus angustifolia
Chestnut**	Castanea spp.	Poplar	Populus spp.
Crabapple**	Malus spp.	Poplar, Tulip	Liriodendron tulipifera
Dogwood	Cornus florida	Peach**	Prunus persica
Eucalyptus	Eucalyptus viminalis, Eucalyptus	Pear**	Pyrus spp.
	pulverulenta, Eucalyptus		
	camaldulensis		
Filbert**	Corylus spp.	Pecan**	Carya spp.
Lilac	Syringa vulgaris	Pistachio**	Pistacia vera

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Locust, Black	Robinia pseudoacacia	Plum**	Prunus spp.
Maple, Black*	Acer nigrum	Prune**	Prunus spp.
Maple, Red*	Acer rubrum	Redbud	Cercis canadensis
Maple, Sugar*	Acer saccharum	Sweetgum	Liquidamber styraciflua
Myrtle, Crepe	Lagerstroemia indica	Sycamore	Platanus occidentalis
Nectarine**	Prunus spp.	Walnut, Black**	Juglans nigra
Nut, Hickory**	Carya spp.		

<sup>\*</sup>Do not apply to maple trees used for production of maple sap or maple syrup.

#### Dosage

Apply 2 to 6 pints (0.5 to 1.5 lbs active) of Galigan 2E per acre as a spray to the soil area surrounding deciduous plants for preemergence or early postemergence weed control. This product may be applied as a single or split application. **DO NOT** apply more than 6 pints of product per season.

For spot treatments, refer to the following table for dosage rates. Sprays must be uniform and applied to the soil on a spray-to-wet basis. When spraying to control weeds on a preemergence or postemergence basis, 1 gallon of spray mixture will cover 400 square feet. (This is equivalent to applying Galigan 2E at a use rate of approximately one gallon per acre in a spray volume of 110 gallons per acre.) –Add an 80% active nonionic surfactant to the spray mixture at a rate of 1 tablespoon (0.5 fluid ounces) per gallon of spray when making postemergence applications.

	Pounds Active/Acre	Pints of Galigan 2E/Acre	Fluid Ounces (mL) of Galigan 2E in One Gallon of Spray Mix to Treat 400 sq ft	Fluid Ounces (mL) of Galigan 2E in One Quart of Spray Mix to Treat 100 sq ft
ſ	1.5	6	0.9	0.22
١			(27)	(7)

#### **Timing**

Galigan 2E can be applied after transplanting or to established deciduous trees. For optimum weed control, make applications prior to weed germination.

For maximum safety to deciduous species mentioned on this label, make post-directed applications of Galigan 2E to the soil prior to bud swell in the spring or after trees have initiated dormancy in the fall. Care must be taken to avoid contact of spray drift or mist with foliage or green bark of deciduous trees.

Galigan 2E may be phytotoxic to the foliage of non-target plants. Avoid making applications of this product under conditions that favor drift to non-target areas.

**Note:** Applications made after bud swell may result in injury to deciduous trees. If a nondormant application is required due to weed competition, do not apply during periods of new foliage growth. Make applications after foliage has fully expanded and hardened off. Direct spray toward the soil at the base of the trees and use greater than 50 gallons of water per acre. Splashing soil can carry Galigan 2E, which may injure the leaves of some deciduous trees.

# **Method of Application**

Direct Galigan 2E to the soil. Avoid direct spray or drift onto foliage, flowers, or green bark. Apply in 20 or more gallons of water per acre to provide uniform spray distribution and coverage to the soil surface. Use higher volumes to ensure adequate soil coverage in high densities of emerged weeds or heavy trash. Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. Use a low-pressure (20 to 40 psi) sprayer. Use spray shields that reduce exposure of foliage and bark to Galigan 2E spray. Calibrate spray equipment carefully before each use.

# Tank Mixtures for Selected Field-Grown Deciduous Trees

In addition to the weeds controlled by Galigan 2E used alone, tank mixes with other preemergence or postemergence herbicides registered for this use may provide a broader spectrum of weed control.

Galigan 2E may be tank mixed with products containing the following active ingredients registered for use in deciduous plantings:

Glyphosate Pendimethalin Napropamide Prodiamine Oryzalin Sethoxydim

Determine the additional weed species to be controlled and, based on label claims, select the product(s) which would give effective control of the targeted weed(s). When using tank mixes of two or more products, use conditions must be in accordance with the more (most) restrictive of the label limitations and precautions of the mixing partners.

IMPORTANT: Read and follow container labels of tank-mix partners and use as directed. Follow the most restrictive labeling.

#### Field-Grown Deciduous Trees-Specific Use Restrictions

In addition to the following, also observe  ${f PRODUCT}$  USE  ${f RESTRICTIONS}$  listed at the beginning of this label.

- DO NOT apply more than 6 pints (1.5 lbs active) of this product per broadcast acre per year.
- The use directions described here for field-grown deciduous trees do not apply to bearing tree fruit, nut, and vine crops. For selected bearing tree fruit, nut, and vine crops, refer to the **TREE FRUITS, NUTS, AND VINES** section of this label for use directions.
- Apply this product to the soil surface surrounding trees prior to bud swell or after trees have initiated dormancy in the fall. If a
  nondormant application is required, apply as a directed spray when foliage has fully expanded and hardened off. Do not apply during
  periods of new foliage growth.
- Avoid direct or indirect spray contact to foliage flowers and green bark.
- DO NOT apply this product when weather conditions favor drift. Avoid drift to non-target areas. Galigan 2E is phytotoxic to plant foliage.
- DO NOT apply Galigan 2E to trees that have been weakened or are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, or winter injury, as severe injury may result.
- DO NOT graze or feed livestock forage cut from areas treated with Galigan 2E.

<sup>\*\*</sup>Apply as directed to nonbearing trees. For bearing tree fruit, nut and vine crops, refer to the TREE FRUITS, NUTS, AND VINES SECTION of this label for use directions.

# NORTH CAROLINA AND SOUTH CAROLINA ONLY

# For Use Only As Directed Spray On Field Corn Grown For Grain In Conjunction With The USDA Witchweed Eradication Program Product Information

Galigan 2E is a selective herbicide for the control of witchweed (Striga asiatica) and works both preemergence and postemergence against witchweed.

#### Dosage

Use 2 to 3 pints of Galigan 2E (0.5 to 0.75 lbs active) per acre preemergence for the first application. The standard use rate is 2 pint rate (0.5 lbs active) per acre with the 3 pint rate (0.75 lbs) per acre for isolated infestations. Make repeat treatments at rates of 1 to 2 pints (0.25 to 0.5 lbs active) per acre postemergence. Use an 80% active nonionic surfactant spreader in the spray mixture at the rate of 0.25% by water volume or 1 quart in 100 gallons of spray mix.

# **Timing and Method Of Application**

Examine fields in the witchweed-infested area selected for treatment with Galigan 2E during the early part of the growing season to determine uniformity of corn stand and grassy weed pressure. Cultivate weedy fields prior to the initial application to obtain the best possible soil coverage in the first spray application. Apply during May-August to emerged witchweed before bloom or as soon as possible after bloom appears to avoid seed set. Corn must have a minimum height of 24 inches at the first application. After this application has been made, inspect the fields regularly for any breakthrough of the witchweed. If breakthrough occurs, then apply a second spray like the first. This application will be made postemergence to the witchweed, preferably before bloom or as soon as possible past the first appearance of witchweed bloom, to avoid seed set.

In all applications, direct the Galigan 2E spray at the base of the corn plant and uniformly over the entire row surface. Do not spray over the top of the corn, as this may result in severe corn injury. Spray droplets contacting the lower leaves will cause necrotic spotting or streaking of sprayed tissue. Spray must contact only the lower 3 to 8 inches of the corn stalk and any leaves in this zone.

#### **Field Corn Grain**

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 5 pints of Galigan 2E (1.25 lbs active) per acre to a corn crop during the growing season.
- Do not apply any application within 60 days before harvest.
- Do not use corn plants from a treated field for green chop, ensilage, forage, or fodder.

#### COTTON

# Post-Directed Spray Product Information

Galigan 2E is a selective herbicide for use as a post-directed application for broadleaf weed control in cotton. Cotton leaves that are accidentally sprayed will exhibit necrotic spotting and may drop from the plant; therefore, care must be exercised to avoid spray contact with the cotton leaves. Crop response may be enhanced if applications are made when excessive soil moisture is present or if rainfall occurs following application. Cotton will outgrow this condition and continue to develop normally.

# Dosage

Use Galigan 2E as a post-directed application at 1 to 2 pints (0.25 to 0.5 lbs active) per acre. Optimum control is achieved when 2 pints of Galigan 2E (0.5 lbs active) per acre\* are applied to weed seedlings not exceeding 4 true leaves. Effective control of succulent weed seedlings in the 2- to 3-leaf stage can usually be obtained when 1 pint of Galigan 2E (0.25 lbs active) per acre\* is applied. See **MIXING DIRECTIONS** for surfactant instructions. Weeds must be in the seedling stage, young and actively growing. Do not count cotyledon leaves.

\*Dosages listed are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches)<br/>Row Width (in inches)XRate per<br/>Broadcast Acre=Amount Needed per Acre<br/>for Banded Application

# **Weeds Controlled Postemergence**

When Galigan 2E is applied as a post-directed application at the specified weed stage and dosage in cotton, the following weeds are controlled:

Cocklebur, Common Croton, Tropic Groundcherry, Cutleaf Groundcherry, Wright Jimsonweed Lambsquarters, Common Morningglory, Annual (up to 6-leaf) Nightshade, American Black Nightshade, Black Nightshade, Hairy Pigweed, Redroot Poinsettia, Wild\* Purslane, Common Sesbania, Hemp Sicklepod\*\* Sida, Prickly (Teaweed)\* Smartweed, Pennsylvania Velvetleaf

#### **Timing**

Southern Cotton (Alabama, Arkansas, Georgia, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia)

Cotton plant height must be a minimum 6 inches or greater. Application to cotton plants less than 6 inches tall can result in severe crop injury. In cotton 6 to 8 inches tall, Galigan 2E must be applied using **rigid** precision ground sprayer equipment. Use spray shields to avoid spray contact with cotton foliage. Use branch lifters or shields if excessive spray contact on larger cotton plants (8 inches or greater) cannot be avoided by the directed spray.

<sup>\*</sup>Multiple applications may be required for acceptable control.

<sup>\*\*</sup>Post-direct applications of Galigan 2E will kill or suppress seedlings not exceeding the one true leaf stage.

#### Western Cotton (Arizona and California)

Cotton plant height must be a minimum 6 inches or greater. Applications to cotton plants less than 6 inches tall can result in severe crop injury. In cotton 6 to 8 inches tall, Galigan 2E must be applied using **rigid** precision ground sprayer equipment. Use spray shields to avoid spray contact with cotton foliage. Use branch lifters or shields if excessive spray contact on larger cotton plants (8 inches or greater) cannot be avoided by the directed spray.

To obtain the maximum benefit of postemergence activity, encourage weed emergence by irrigating prior to spraying. Irrigate immediately following Herbicide application to obtain greatest benefit of preemergence activity from Galigan 2E on nightshade and groundcherry species.

# **Method of Application**

# **Southern and Western Cotton**

Accurate, uniform placement of Galigan 2E spray is essential for effective weed control and to minimize cotton injury. As a directed postemergence application, apply Galigan 2E at 20 to 25 psi using 20 to 40 gallons of spray on a broadcast acre basis. Do **not** exceed 25 psi. Direct spray towards the base of the cotton plant. Cotton foliage receiving accidental spray or drift may be injured. Weeds must be in the seedling stage, young and actively growing.

Galigan 2E can be applied using a post-direct spray rig with only 2 flat fan nozzles per row, 1 nozzle on each side of the row. Additional care must be taken when adjusting sprayer prior to application. For best coverage, use 4 flat fan nozzles per row, 2 nozzles on each side of the row. Point the two forward nozzles forward and downward, and point the rear nozzles to the rear and downward. With either sprayer system, adjust the nozzles to cover the weed foliage with minimum contact to the cotton plant. **Do not use hollow cone nozzles.** 

# Tank Mixes with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for tank mixtures, the most restrictive situations must apply.

#### Dosage

For postemergence control of susceptible grassy and broadleaf weeds in cotton, a tank mixture of Galigan 2E with either Diuron 4L or MSMA can be applied as a post-directed application. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

#### Cotton

# Southern and Western

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Southern Cotton: Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E per season as a result of a single application or multiple applications. Do not apply within 90 days of harvest.
- Western Cotton: Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per broadcast acre in a single application or more than a total of 4 pints (1.0 lbs active) of Galigan 2E per broadcast acre per season as a result of multiple applications. Do not apply within 75 days of harvest.
- Application after initiation of bloom is prohibited.

# **COTTONWOOD**

#### Product Information

Galigan 2E is an effective herbicide for postemergence and preemergence control of certain broadleaf weeds in cottonwood plantings. Galigan 2E may be applied postemergence or be post-directed to the base of the cottonwood tree. Applications must only be made prior to bud break to avoid possible phytotoxicity to the cottonwood foliage. Applications made after bud break may result in injury to the cottonwood plant.

#### Dosage

Apply 4 to 6 pints (1.0 to 1.5 lbs active) of Galigan 2E per broadcast acre for preemergence and postemergence weed control. The addition of 1 quart of an 80% active nonionic surfactant per 100 gallons of spray mix will assist in spray coverage and wetting of weeds for postemergence control.

#### **Weeds Controlled**

When Galigan 2E is applied preemergence or postemergence to weed seedlings (not exceeding 6-leaf stage) at specified dosages, the following broadleaf weeds are controlled:

Groundsel, Common Knotweed, Prostrate Lambsquarters, Common Mustard, Hedge Shepherdspurse Smartweed, Pennsylvania

# **Timing and Method of Application**

For optimum weed control, apply Galigan 2E prior to weed emergence. Make preemergence applications prior to or immediately after transplanting dormant cottonwood seedlings. Applications must be made prior to bud break of the cottonwood trees.

Apply Galigan 2E in a minimum of 20 gallons of water per acre depending upon density of emerged weeds. Increase spray volume as weed height and density increase. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

# Cottonwood

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Apply Galigan 2E only to dormant healthy cottonwood stock.
- Do not apply more than 6 pints (1.5 lbs active) in a single application or more than 18 pints (4.5 lbs active) per acre per season as a result of multiple applications.

#### **EUCALYPTUS**

#### **Product Information**

Galigan 2E is an effective herbicide for postemergence and preemergence control of certain broadleaf weeds in permanently established eucalyptus (*E. viminalis*, *E. pulverulenta*, *E. camaldulensis*) plantings. In new plantings, apply Galigan 2E immediately prior to or immediately following transplanting of dormant eucalyptus seedlings. In established plantings, apply Galigan 2E postemergence (over-the-top) or post-directed to the base of the eucalyptus tree. Applications must only be made prior to bud break to avoid possible phytotoxicity to the eucalyptus foliage. Applications made after bud break may result in injury to the eucalyptus plant.

#### Dosage

Apply 4 to 6 pints (1.0 to 1.5 lbs active) of Galigan 2E per broadcast acre for preemergence and postemergence weed control. The addition of 1 quart of an 80% active nonionic surfactant per 100 gallons of spray mix will assist in spray coverage and wetting of weeds for postemergence control.

#### **Weeds Controlled**

When Galigan 2E is applied preemergence or postemergence to weed seedlings (not exceeding 6-leaf stage) at specified dosages, the following broadleaf weeds are controlled:

#### **Weeds Controlled Preeemergence**

Burclover Lettuce. Prickly Cheeseweed (Malva) Pigweed, Redroot Fiddleneck, Coast Purslane, Common Filaree, Broadleaf Redmaids Filaree, Redstem Rocket, London Filaree, Whitestem Shepherdspurse Groundsel, Common Sowthistle, Annual Henbit Spurge, Prostrate Knotweed, Prostrate Spurge, Spotted Lambsquarters, Common

# **Weeds Controlled Postemergence**

Cheeseweed (Malva)Miner's LettuceFiddleneck, CoastNettle, BurningFilaree, Braodleaf\*Pigweed, RedrootFilaree, Redstem\*RedmaidsFilaree, Whitestem\*ShepherdspurseGroundsel, CommonSowthistle, Annual

Henbit

#### **Timing and Method of Application**

For optimum weed control, apply Galigan 2E prior to weed emergence. Apply postemergence applications to seedling weeds (up to the 6-leaf stage). Applications must be made prior to bud break of either transplants or established eucalyptus trees.

Apply Galigan 2E at 20 to 40 psi in a minimum of 20 gallons of water per acre depending upon density of emerged weeds. Increase spray volume as weed height and density increase. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

#### **Eucalyptus**

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Apply Galigan 2E only to dormant healthy eucalyptus stock.
- Do not apply more than 6 pints (1.5 lbs active) per treated acre in a single application or more than 18 pints (4.5 lbs active) per acre per season as a result of multiple applications.

# **FALLOW BED**

# Ground or Aerial Application of Galigan 2E on Fallow Beds Product Information

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in a tank mix combination with glyphosate (Glyphogan) for the control of winter annual broadleaf weeds in fallow beds to be planted to the crops listed below.

MINIMUM TREATMENTS-PLANTING INTERVAL			
	Galigan 2I	Galigan 2E Use Rate	
	up to 1 pint/A	up to 2 pints/A	
Direct-Seeded Crops			
Carrot	90 days	90 days	
Cotton	7 days	7 days	
Potato	60 days	60 days	
Sugarbeet	60 days	90 days	
Other Root/Tuber Crops	90 days	90 days	
Onions	180 days	180 days	
Other Bulb Vegetables	180 days	180 days	
Cabbage, Cauliflower	90 days	90 days	
Other Brassica Crops	120 days	120 days	
Lettuce	90 days	120 days	
Other Leafy Vegetables (Except Brassica Crops)	120 days	120 days	
Pepper	90 days	120 days	
Tomato	60 days	120 days	
Other Fruiting Vegetables	120 days	120 days	
Cantaloupe	60 days	90 days	

<sup>\*</sup> Galigan 2E at the 6-pint rate (1.5 lbs active) will provide control of filaree up to the 6-leaf stage.

Squash	90 days	120 days
Watermelon	60 days	60 days
Other Cucurbits	90 days	120 days
Dry Beans	60 days	60 days
Peanut	60 days	60 days
Other Legume Vegetables	60 days	60 days
Safflower	60 days	60 days
Cereal Grains (includes barley, buckwheat, corn, proso millet, pearl millet, oats, popcorn, rice, rye, sorghum, triticale, wheat, wild rice)	10 months	10 months
Soybeans (Except California)	7 days	7 days
Transplanted Crops		
Broccoli	0 days	30 days
Cabbage	0 days	30 days
Cauliflower	0 days	30 days
Celery	30 days	30 days
Conifer	0 days	0 days
Garlic	0 days	30 days
Grape, Kiwi	0 days	0 days
Onions (Dry Bulbs Only)	0 days	30 days
Pepper	30 days	30 days
Strawberries	30 days	30 days
Tomato	30 days	30 days
Tree Fruit, Nuts, Citrus	0 days	0 days

**IMPORTANT:** Work the fallow beds thoroughly to a depth of at least 2.5 inches prior to planting; do not expect weed control following breaking of the soil surface. FAILURE TO ACHIEVE THOROUGH AND COMPLETE INCORPORATION OR TO FOLLOW THE SPECIFIED TREATMENT-PLANTING INTERVAL MAY RESULT IN STAND REDUCTION AND/OR VIGOR REDUCTION OF THE PLANTED CROP.

Crop injury may be enhanced if newly seeded crops or transplants are under stress due to drought, flooding, excessive fertilizer or soil salts, low soil temperatures, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.

EXERCISE EXTREME CARE TO AVOID HERBICIDE CONTACT WITH ANY DESIRABLE DORMANT OR NON-DORMANT CROP, PLANT, TREE, OR VEGETATION AS SEVERE INJURY MAY RESULT.

# Galigan 2E Used Alone Dosage

Galigan 2E may be applied at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. The lower rate (1 pint per acre) provides up to 4 weeks of preemergence control of susceptible weeds (up to 4-leaf stage). The higher rate (2 pints per acre) provides preemergence control of susceptible weeds for up to 8 weeks and postemergence control of susceptible weeds (up to 6-leaf stage). Best preemergence control is achieved when irrigation or rainfall occurs within 3 to 4 weeks following application.

#### **Weeds Controlled**

Galigan 2E provides preemergence and postemergence\* control of the following weeds when used at specified dosages and weed stage.

Buttercup, Smallflower Cheeseweed (Malva) Eveningprimrose, Cutleaf\*\* Fiddleneck, Coast Filaree, Broadleaf Filaree, Redstem Geranium, Carolina

Groundsel, Common Henbit Ladysthumb

Miner's Lettuce

Mustard Species Nettle, Burning

Oxalis

Pigweed, Redroot Purslane, Common Redmaids Rocket, London Shepherdspurse Sida, Prickly Sowthistle, Annual Velveltleaf (Wild cotton)

\*Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. For postemergence control when applied by air, use a tank mixture of Galigan 2E with glyphosate (Glyphogan).

Galigan 2E is a contact herbicide, therefore, coverage is essential for acceptable postemergence control. If dense weed populations, oversized weed seedlings, volunteer grains, annual grasses, or unfavorable environmental conditions exist, use a tank mixture of Galigan 2E with glyphosate (Glyphogan) for postemergence control.

#### Tank Mixes With Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.

#### Dosage

Galigan 2E can be tank mixed with glyphosate (Glyphogan) to obtain postemergence control of annual grassy weeds, volunteer grains, and broadleaf weeds. Tank mix 1 to 2 pints (0.25 to 0.5 lbs active) of Galigan 2E with labeled rates of glyphosate (Glyphogan). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

# Method of Application Ground Application

Apply Galigan 2E in a minimum of 20 gallons of water per acre. Increase the volume of water used as the weeds become taller and more dense. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

<sup>\*\*</sup>Requires maximum rate and/or multiple applications for effective control.

#### **Aerial Application**

Apply Galigan 2E using swirl jet or hollow cone nozzles and a spray pressure less than 40 psi to deliver a minimum spray volume of 10 gallons per acre (minimum 5 GPA for Galigan 2E/glyphosate (Glyphogan) tank mix).

Make applications at a height of 6 to 10 feet above the soil surface. Do not place the nozzles on the spray booms any closer to the wing or rotor tips than 3/4 of the span; this will minimize the formation of spray or wing tip vortice roll. Space and position nozzles to produce a uniform spray pattern and to minimize or eliminate the formation of droplets 100 microns or less in diameter.

#### Important

Aerial applicators must be familiar with this label and follow the use precautions. Spraying Galigan 2E in a manner other than as specified is done at the user's risk. Users are responsible for all loss or damage that result from such spraying. In addition, aerial applicators must follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, apply the most restrictive situations to avoid drift hazards.

#### **Fallow Bed**

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per acre per fallow season.

# FALLOW BED USE PRIOR TO TRANSPLANTING STRAWBERRIES OR PEPPERS GROWN IN PLASTIC CULTURE CALIFORNIA ONLY

#### **Product Information**

In California, apply Galigan 2E broadcast or banded as a fallow bed application to pre-formed beds prior to planting strawberries or peppers grown in plastic culture. Use soil moisture to activate the Galigan 2E soon after application by irrigating the beds with 0.5 inch of sprinkler irrigation and then put plastic down anytime during the 30-day treatment-to-planting interval. If there is adequate soil moisture, apply plastic to the beds as soon as possible after application and allow the moisture which condenses and accumulates beneath the plastic to thoroughly wet the treated soil. Mechanical incorporation of the fallow-bed treatment prior to laying plastic is not required. Not disturbing the soil surface can allow for extended weed control. Not incorporating the soil surface increases the potential for crop injury, especially under wet conditions. Therefore, incorporate the treatment if the risk of crop injury is not acceptable. Follow directions for use and the minimum treatment-to-planting intervals outlined for fallow bed applications.

# FALLOW BED USE PRIOR TO TRANSPLANTING PEPPERS, STRAWBERRIES OR TOMATOES GROWN IN PLASTIC CULTURE FLORIDA, GEORGIA, NORTH CAROLINA, SOUTH CAROLINA AND VIRGINA ONLY

#### **Product Information**

In Florida, Georgia, North Carolina, South Carolina and Virginia, Galigan 2E is effective as a preemergence broadcast or banded treatment to pre-formed beds as a fallow-bed application prior to planting of peppers, strawberries or tomatoes grown in plastic culture. Put down plastic anytime during the 30-day treatment-to-planting interval. Incorporation of the fallow-bed treatment prior to laying plastic is not required and can allow extended weed control. However, not incorporating increases the potential for crop injury, especially under wet conditions. Therefore, incorporate the treatment if the risk of crop injury is not acceptable. Follow directions for use and the minimum treatment-to-planting intervals outlined above for fallow bed applications.

# FALLOW BEDS TO BE PLANTED TO COTTON AND SOYBEANS

Ground or Aerial Application of Galigan 2E on Fallow Beds To Be Planted To Cotton or Soybeans Not for Use on Fallow Beds to be Planted to Soybeans in California Product Information

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in a tank mix combination with glyphosate (Glyphogan) or paraquat (Parazone 3SL) for the control of winter annual broadleaf weeds in fallow beds to be planted to cotton or soybeans. Do not apply Galigan 2E within 7 days prior to planting. Work the fallow beds thoroughly to a depth of at least 2 inches prior to planting. It is important to thoroughly break the soil surface prior to planting. Do not expect weed control following breaking of the soil surface.

EXERCISE EXTREME CARE TO AVOID HERBICIDE CONTACT WITH ANY DESIRABLE DORMANT OR NON-DORMANT CROP, PLANT, TREE, OR VEGETATION AS SEVERE INJURY MAY RESULT.

# Galigan 2E Used Alone

#### Dosage

Galigan 2E may be applied at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. The lower rate (1 pint per acre) provides up to 4 weeks of preemergence control of susceptible weeds and provides postemergence control of susceptible weeds (up to 4-leaf stage). The higher rate (2 pints per acre) provides preemergence control of susceptible weeds for up to 8 weeks and postemergence control of susceptible weeds (up to 6-leaf stage). Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks following application.

# **Weeds Controlled**

Galigan 2E provides preemergence and postemergence\* control of the following weeds when used at specified dosages and weed stage.

Buttercup, Smallflower Mustard Species
Cheeseweed (Malva) Nettle, Burning

Cheeseweed (Malva)

Eveningprimrose, Cutleaf\*\*

Oxalis

Fiddleneck, Coast

Pigweed, Redroot

Filarse, Product

Filaree, Broadleaf Purslane, Common Filaree, Redstem Redmaids Geranium, Carolina Rocket, London Groundcherry, Cutleaf Shepherdspurse Groundsel, Common Sida, Prickly Hambit Sowthistle Appual

Henbit Sowthistle, Annual Ladysthumb Velvetleaf (Wild Cotton)
Miner's Lettuce

<sup>\*</sup>Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. For postemergence control when applied by air, use a tank mixture of Galigan 2E with either glyphosate (Glyphogan) or paraquat (Parazone 3SL).

\*\*Requires maximum rate and/or multiple applications for effective control.

# Tank Mixes with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.

#### Dosage

Galigan 2E can be tank mixed with either glyphosate (Glyphogan) or paraquat (Parazone 3SL) to obtain postemergence control of annual grassy weeds, volunteer grains, and broadleaf weeds. Tank mix 1 to 2 pints (0.25 to 0.5 lbs active) of Galigan 2E with labeled rates of either glyphosate (Glyphogan) or paraquat (Parazone 3SL). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

**Outside of California:** For enhanced contact activity (burndown/suppression) to either glyphosate (Glyphogan) or paraquat (Parazone 3SL), add Galigan 2E at a rate of 6.5 ounces (0.1 lbs active) per acre to labeled rates of either glyphosate (Glyphogan) or paraquat (Parazone 3SL). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

If a fallow bed treatment is applied thirty days or more prior to planting and at least three significant rainfalls (0.25 inch or greater) have occurred following application, cotton or soybeans can be planted directly into the stale seedbed. If these conditions cannot be met, soil incorporation is required as directed above.

# Method of Application

# **Ground Application**

Apply Galigan 2E in a minimum of 5 gallons of water per acre. Increase the volume of water used as the weeds become taller and more dense. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

#### Aerial Application

Apply Galigan 2E using swirl jet or hollow cone nozzles and a spray pressure less than 40 psi to deliver a minimum spray volume of 5 gallons per acre (in California, minimum 10 GPA when applied alone or tank mixed with paraquat (Parazone 3SL). Make applications at a height of 6 to 10 feet above the soil surface. Do not place the nozzles on the spray booms any closer to the wing or rotor tips than 3/4 of the span; this will minimize the formation of spray or wing tip vortice roll. Nozzles must be spaced and positioned to produce a uniform spray pattern and to minimize or eliminate the formation of droplets 100 microns or less in diameter.

#### **Importan**

Aerial applicators must be familiar with this label and follow the use precautions. Spraying Galigan 2E in a manner other than as specified is done at the user's risk. Users are responsible for all loss or damage that result from such spraying. In addition, aerial applicators must follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, apply the most restrictive situations to avoid drift hazards.

The use of a drift control agent may be required by local regulations. However, the drift control agent may decrease the weed control effectiveness.

# Fallow Bed (Cotton, Soybeans)

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per acre per fallow season.
- Do not apply Galigan 2E within 7 days prior to planting of cotton or soybeans.

# FALLOW BEDS TO BE PLANTED TO FIELD CORN ARKANSAS, LOUISIANA AND MISSISSIPPI ONLY

Ground or Aerial Application of Galigan 2E on Fallow Beds to be Planted to Field Corn Use only on Fallow Beds to be Planted to Field Corn in Arkansas, Louisiana and Mississippi Product Information

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in a tank mix combination with glyphosate (Glyphogan) or paraquat (Parazone 3SL) for the control of winter annual broadleaf weeds in fallow beds to be planted to corn. Do not apply Galigan 2E within 7 days prior to planting. Unless otherwise specified in this label, work the fallow beds thoroughly to a depth of at least 2 inches prior to planting. It is important to thoroughly break the soil surface prior to planting. Do not expect weed control following breaking of the soil surface.

If a fallow bed treatment is applied thirty days or more prior to planting and at least three significant rainfalls (0.25 inch or greater) have occurred following application, corn can be planted directly into the stale seedbed. If these conditions cannot be met, soil incorporation is required as directed above.

EXERCISE EXTREME CARE TO AVOID HERBICIDE CONTACT WITH ANY DESIRABLE DORMANT OR NON-DORMANT CROP, PLANT, TREE, OR VEGETATION AS SEVERE INJURY MAY RESULT.

# Galigan 2E Used Alone

# Dosage

Apply Galigan 2E at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. The lower rate (1 pint per acre) provides up to 4 weeks of preemergence control of susceptible weeds and provides postemergence control of susceptible weeds (up to 4-leaf stage). The higher rate (2 pints per acre) provides preemergence control of susceptible weeds for up to 8 weeks and postemergence control of susceptible weeds (up to 6-leaf stage). Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks following application.

# **Weeds Controlled**

Galigan 2E provides preemergence and postemergence\* control of the following weeds when used at specified dosages and weed stage:

Buttercup, Smallflower
Cheeseweed (Malva)
Eveningprimrose, Cutleaf\*\*

Mustard Species
Nettle, Burning
Oxalis

Fiddleneck, Coast Pigweed, Redroot
Filaree, Broadleaf Purslane, Common

Filaree, Redstem Geranium, Carolina Groundcherry, Cutleaf Groundsel, Common Henbit Ladysthumb Miner's Lettuce Redmaids Rocket, London Shepherdspurse Sida, Prickly Sowthistle, Annual Velvetleaf (Wild Cotton)

# Tank Mixes With Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.

#### Dosage

Galigan 2E can be tank mixed with either glyphosate (Glyphogan) or paraquat (Parazone 3SL) to obtain postemergence control of annual grassy weeds, volunteer grains, and broadleaf weeds. Tank mix 1 to 2 pints (0.25 to 0.5 lbs active) of Galigan 2E with labeled rates of either glyphosate (Glyphogan) or paraquat (Parazone 3SL). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

For enhanced contact activity (burndown/suppression) to either glyphosate (Glyphogan) or paraquat (Parazone 3SL), add Galigan 2E at a rate of 3.5 to 7 ounces (0.05 to 0.1 lbs active) per acre to labeled rates of either glyphosate (Glyphogan) or paraquat (Parazone 3SL). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

# **Method of Application**

# **Ground Application**

Apply Galigan 2E in a minimum of 20 gallons of water per acre. Increase the volume of water used as the weeds become taller and more dense. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

#### Aerial Application

Apply Galigan 2E using swirl jet or hollow cone nozzles and a spray pressure less than 40 psi to deliver a minimum spray volume of 5 gallons per acre. Make applications at a height of 6 to 10 feet above the soil surface. Do not place the nozzles on the spray booms any closer to the wing or rotor tips than 3/4 of the span; this will minimize the formation of spray or wing tip vortice roll. Nozzles must be spaced and positioned to produce a uniform spray pattern and to minimize or eliminate the formation of droplets 100 microns or less in diameter.

#### **Important**

Aerial applicators must be familiar with this label and follow the use precautions. Spraying Galigan 2E in a manner other than as specified is done at the user's risk. Users are responsible for all loss or damage that result from such spraying. In addition, aerial applicators must follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, apply the most restrictive situations to avoid drift hazards.

# Fallow Bed (Field Corn) -Arkansas, Louisiana and Mississippi Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per acre per fallow season.
- Do not apply Galigan 2E within 7 days prior to planting of corn.
- Do not use corn plants from a treated field for green chop, ensilage, forage or fodder.
- Do not feed or allow animals to graze on any areas treated with Galigan 2E.
- Do not treat ditch banks or waterways with Galigan 2E.
- Chemigation: do not apply this product through any type of irrigation system except as specified on other approved supplemental labeling.

IMPORTANT: Treated soil must be thoroughly incorporated to a depth of 4 inches after harvest (or abandoning) of the treated crop but prior to planting of the rotational crop. Failure to achieve this thorough and complete incorporation or to follow the required minimum plant back interval may results in crop injury, stand reduction, and/or vigor reduction of the plant-back crop. See specific fallow bed labeling regarding crop planting information for applications of Galigan 2E made to a fallow bed or fallow field.

# FALLOW BEDS TO BE PLANTED TO FIELD CORN CALIFORNIA ONLY

# Ground or Aerial Application of Galigan 2E on Fallow Beds to be Planted to Field Corn Use Only on Fallow Beds to be planted to Field Corn in California Product Information

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in a tank mix combination with glyphosate (Glyphogan) or paraquat (Parazone 3SL) for the control of winter annual broadleaf weeds in fallow beds to be planted to corn. Do not apply Galigan 2E within 60 days prior to planting. Work the fallow beds thoroughly to a depth of at least 2.5 inches prior to planting. It is important to thoroughly break the soil surface prior to planting. Do not expect weed control following breaking of the soil surface.

If a fallow bed treatment is applied sixty days or more prior to planting and at least three significant rainfalls (0.25 inch or greater) have occurred following application, corn can be planted directly into the stale seedbed. If these conditions cannot be met, soil incorporation is required as directed above.

EXERCISE EXTREME CARE TO AVOID HERBICIDE CONTACT WITH ANY DESIRABLE DORMANT OR NON-DORMANT CROP, PLANT, TREE, OR VEGETATION AS SEVERE INJURY MAY RESULT.

Galigan 2E Used Alone Dosage

<sup>\*</sup>Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. For postemergence control when applied by air, use a tank mixture of Galigan 2E with either glyphosate (Glyphogan) or paraquat (Parazone 3SL).

<sup>\*\*</sup>Requires maximum rate and/or multiple applications for effective control.

Apply Galigan 2E at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. The lower rate (1 pint per acre) provides up to 4 weeks of preemergence control of susceptible weeds and provides postemergence control of susceptible weeds (up to 4-leaf stage). The higher rate (2 pints per acre) provides preemergence control of susceptible weeds for up to 8 weeks and postemergence control of susceptible weeds (up to 6-leaf stage). Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks following application.

#### **Weeds Controlled**

Galigan 2E provides preemergence and postemergence\* control of the following weeds when used at specified dosages and weed stage.

Buttercup, Smallflower
Cheeseweed (Malva)
Nettle, Burning
Outlier

Eveningprimrose, Cutleaf\*\* Oxalis Fiddleneck, Coast Pigweed, Redroot Purslane, Common Filaree, Broadleaf Filaree, Redstem Redmaids Geranium, Carolina Rocket, London Groundcherry, Cutleaf Shepherdspurse Groundsel, Common Sida, Prickly Henbit Sowthistle, Annual

Ladysthumb Velvetleaf (Wild Cotton)
Miner's Lettuce

\*Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. For postemergence control when applied by air, use a tank mixture of Galigan 2E with either glyphosate (Glyphogan) or paraquat (Parazone 3SL).

\*\*Requires maximum rate and/or multiple applications for effective control.

#### Tank Mixes with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mix, the most restrictive situations must apply.

#### Dosage

Galigan 2E can be tank mixed with either glyphosate (Glyphogan) or paraquat (Parazone 3SL) to obtain postemergence control of annual grassy weeds, volunteer grains, and broadleaf weeds. Tank mix 1 to 2 pints (0.25 to 0.5 lbs active) of Galigan 2E with labeled rates of either glyphosate (Glyphogan) or paraquat (Parazone 3SL). Apply at the specified rates and growth stages to susceptible weed species in a manner consistent with the respective labels.

# Method of Application Ground Application

Apply Galigan 2E in a minimum of 20 gallons of water per acre. Increase the volume of water used as the weeds become taller and more dense. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

### **Aerial Application**

Apply Galigan 2E using swirl jet or hollow cone nozzles and a spray pressure less than 40 psi to deliver a minimum spray volume of 5 gallons per acre. Make applications at a height of 6 to 10 feet above the soil surface. Do not place the nozzles on the spray booms any closer to the wing or rotor tips than 3/4 of the span; this will minimize the formation of spray or wing tip vortice roll. Nozzles must be spaced and positioned to produce a uniform spray pattern and to minimize or eliminate the formation of droplets 100 microns or less in diameter.

#### Important

Aerial applicators must be familiar with this label and follow the use precautions. Spraying Galigan 2E in a manner other than as specified is done at the user's risk. Users are responsible for all loss or damage that result from such spraying. In addition, aerial applicators must follow all applicable state and local regulations and ordinances. In interpreting the label and local regulations, apply the most restrictive situations to avoid drift hazards.

Crop injury may be enhanced if newly seeded crops are under stress due to drought, flooding, excessive fertilizer or soil salts, low soil temperatures, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.

# Fallow Bed (Corn) - California Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per acre per fallow season. Do not apply more than 0.5 lbs of oxyfluorfen
  active ingredient per acre per fallow season as a result of single or multiple applications of this or other oxyfluorfen formulations.
- Do not apply Galigan 2E within 60 days prior to planting of corn.
- Before planting field corn, treated soil must be thoroughly mixed to a depth of at least 2.5 inches.
- · Chemigation: Do not apply this product through any type of irrigation system except as specified elsewhere on this label.
- Do not use on sweet corn.
- Do not use corn plants from a field treated with Galigan 2E for green chop, ensilage, forage or fodder.
- Do not feed or allow animals to graze on any areas treated with Galigan 2E.
- Application may be made in a minimum of 20 gal of water/A using ground equipment or 5 gal/A by air. Applications may be made alone or as a tank mix with other herbicides.
- Do not apply more than 0.5 lbs active per year.

# FALLOW LAND IDAHO, OREGON AND WASHINGTON ONLY

# **Product Information**

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in a tank mix combination with glyphosate (Glyphogan) for the control of certain annual broadleaf weeds in a fallow land system. Galigan 2E can be used as an effective tool to reduce weed growth prior to the establishment of a dry soil mulch. Use of this product is restricted to summer fallow land that will be planted back the following year to winter wheat, barley, or oats.

# Galigan 2E Used Alone

#### Dosage

Use Galigan 2E at 0.5 to 2 pints (0.125 to 0.5 lbs active) per broadcast acre.

#### Weeds Controlled

Galigan 2E will provide postemergence control and preemergence activity of the following broadleaf weeds when used at specified dosages.

Fiddleneck, Coast Pigweed, Redroot
Henbit Purslane, Common
Lettuce, Prickly (China Lettuce) Shepherdspurse
Mustard, Blue (Purple Mustard) Sowthistle, Annual

Mustard, Tumble (Jim Hill Mustard)

# **Timing and Method of Application**

The most effective postemergence weed control is achieved when Galigan 2E is applied to seedling weeds (less than 4 inches in height). Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence.

Apply Galigan 2E in 20 to 40 gallons of water per acre depending upon density of emerged weeds. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment before each use.

# Tank Mixes With Galigan 2E

#### Dosage

For postemergence control of annual grassy weeds, Galigan 2E can be tank-mixed with glyphosate (Glyphogan). Tank mix 0.5 to 2 pints (0.125 to 0.5 lbs active) of Galigan 2E with 0.75 to 1 pint (0.38 to 0.5 lbs active) of glyphosate (Glyphogan) for each acre treated. Refer to the **FALLOW SYSTEMS** section on the glyphosate (Glyphogan) label for specific use directions and restrictions. Fill the spray tank at least one-third full of clean water and add the specified amounts of Galigan 2E and glyphosate (Glyphogan) while the pump and agitator are running. Complete filling of the spray tank with water. Add 1 quart of a comparable 80% active nonionic surfactant, cleared for use on growing crops, per 100 gallons of spray. Maintain agitation until spraying is complete.

#### **Fallow Land**

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not exceed 2 pints (0.5 lbs active) of Galigan 2E per acre on summer fallow land.

# GARBANZO BEANS CALIFORNIA AND ARIZONA ONLY

# **Product Information**

Galigan 2E is effective as a preemergence herbicide when used alone for the control of certain annual broadleaf weeds in garbanzo beans. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Seedling weeds are controlled as they come in contact with soil-applied herbicide during emergence. Timely cultivations will usually assist in weed control.

Garbanzo beans are tolerant to preemergence applications of Galigan 2E, however, under certain conditions, Galigan 2E can cause severe but temporary crop injury. Heavy splashing rain shortly after crop emergence or wet soil conditions during early growth stages can produce leaf cupping, crinkling, stunting, or defoliation of the garbanzo seedlings. When injury occurs, it is often limited to the first few leaves that develop shortly after crop plants emerge from the soil. Delays in crop development and/or maturity may result. Garbanzo beans do recover from this injury with little to no impact on yield.

# Galigan 2E Used Alone

#### Dosage

Use Galigan 2E for preemergence control of susceptible winter annual broadleaf weeds at 1 pint (0.25 lbs active) per broadcast acre.

# **Weeds Controlled Preemergence**

Galigan 2E used alone at specified dosages provides preemergence control of the following broadleaf weeds:

Groundsel, Common Rocket, London Mallow, Little (Malva) Shepherdspurse

# **Timing and Method of Application**

As a preemergence application, apply in a minimum of 20 gallons of water per acre. Use conventional ground spray equipment to make a single broadcast application, after planting but prior to weed and crop emergence, with flat fan or hollow cone nozzles. Calibrate spray equipment carefully before each use.

# Garbanzo Beans in California and Arizona

# **Specific Use Restrictions**

In addition to the following, also observe **PRODUCT USE RESTRICTIONS** listed at the beginning of this label.

- Use only preemergence to garbanzo beans.
- Do not apply more than 1 pint (0.25 lbs active) per broadcast acre of Galigan 2E in a single application.
- Do not use bean vines for livestock feed or hay.

#### **GARLIC**

#### **Product Information**

Galigan 2E is a selective herbicide for postemergence application to direct-seeded and transplanted garlic for early postemergence control of certain annual broadleaf and grass weeds. Make initial spray application only when the garlic plants have reached the development stage specified in the **Dosage** section and the **Specific Use Restrictions** section of this label. On garlic transplants, spray as soon after transplanting as practical. Galigan 2E can cause necrotic lesions, twisting, pigtailing, or stunting of the garlic plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the development stage of the garlic plants as specified in the **Dosage** section and the **Specific Use Restrictions** section of this label.

# Dosage

#### **Direct Seeded Garlic**

Northeastern States (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont)

Use Galigan 2E for postemergence control at 2 to 4 fluid ounces (0.03 to 0.06 lbs active) per acre when applied postemergence to seeded garlic that have at least three (3) true leaves. Multiple treatments at the aforementioned rate may be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season.

# Western States (Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, and Washington)

Use Galigan 2E for postemergence control at 0.5 to 1 pint (0.125 to 0.25 lbs active) per acre in a minimum of 40 gallons of water when applied postemergence to garlic that have at least two (2) true leaves. Multiple treatments at the aforementioned rates may be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season.

#### All Other States

Use Galigan 2E for postemergence control at 0.5 pints (0.125 lbs active) per acre when applied postemergence to garlic that have at least two (2) true leaves. Multiple treatments at the aforementioned rates can be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season.

# **Direct Seeded Garlic - California Only**

# **Product Information**

Galigan 2E is a selective herbicide for preemergence use (by air, ground, or sprinkler application), post-directed use when applied by ground equipment, or postemergence (over the top) application when applied via sprinkler irrigation for control of certain broadleaf and grass weeds in garlic in California.

# **Preemergence Garlic Applications in California**

Apply Galigan 2E at a rate of 1pint (0.25 lbs active) per broadcast acre as a preemergence application to garlic. Methods of application may be ground, sprinkler, or aerial.

**Ground Application:** If applied using ground application equipment, apply Galigan 2E in a minimum of 20 gallons per acre. Use conventional ground spray equipment with flat nozzles at 20 to 40 psi.

**Sprinkler Chemigation:** If Galigan 2E is to be applied via sprinkler irrigation, follow the method of application directions listed for sprinkler chemigation. For application using sprinkler (solid set or portable lateral) irrigation systems, apply specified dosage of Galigan 2E per acre as described above. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION** when making applications using sprinkler irrigation systems.

**Aerial Application:** If applied using aerial application, apply Galigan 2E using swirl jet or hollow cone nozzles and a spray pressure less than 40 psi to deliver a minimum spray volume of 10 gallons per acre. Make applications at a height of 6 to 10 feet above the soil surface. Do not place the nozzles on the spray booms any closer to the wing or rotor tips than 3/4 of the span; this will minimize the formation of spray or wing tip vortice roll. Nozzles must be spaced and positioned to produce a uniform spray pattern and to minimize or eliminate the formation of droplets 100 microns or less in diameter.

Garlic Response to Preemergence Applications with Galigan 2E: A chlorotic band around some of the leaves may be observed after the first irrigation (or rainfall) following garlic emergence. Symptoms may be more severe if garlic emerges under cool, wet, overcast, or foggy weather. This condition is temporary and will not affect the vigor or development of the garlic plant.

#### Postemergence (and Directed) Garlic Applications in California

Apply Galigan 2E at rates up to 1 pint (0.25 lbs active) per broadcast acre as a postemergence (or directed) application in garlic. The garlic must be at least 12 inches in height at application. Weeds must be in the seedling stage, young, and actively growing. Methods of application may be post-directed or by sprinkler chemigation.

Post Direct Application: For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches)
Row Width (in inches)

X

Rate per
Broadcast Acre

=

Amount Needed per Acre
for Banded Application

Accurate, uniform placement of Galigan 2E spray is essential for effective weed control and to minimize garlic injury. As a directed, postemergence application, apply Galigan 2E using a low-pressure sprayer using a minimum of 20 gallons of spray on a broadcast acre basis. Apply Galigan 2E as a directed treatment to the soil area at the base of the plants and to the adjacent bed top and furrow areas. Adjust nozzles to cover the weed foliage with minimum contact to the garlic plant. Reduce tractor speed and smooth furrows to minimize excessive bouncing of the spray boom.

**Sprinkler Chemigation:** If Galigan 2E is to be applied via sprinkler irrigation, follow the method of application directions listed for sprinkler chemigation. For application using sprinkler (solid set or portable lateral) irrigation systems, apply specified dosage of Galigan 2E per acre as described above. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION** when making applications using sprinkler irrigation systems.

Garlic Response to Postemergence Applications With Galigan 2E: Galigan 2E may cause chlorotic leaf banding, necrotic lesions, or stunting of the garlic plants. Symptoms will be more severe if applications are made during cool, wet, overcast, or foggy weather. Garlic will outgrow these conditions and continue to develop normally.

# Cultural Considerations for use in California

On mineral soils, in order to provide maximum preemergence activity, the soil surface must be smooth and free of excessive trash (clippings, dead weeds, etc.). Cultural practices that result in redistribution or disturbance of the soil surface after spraying or that mix untreated soil in treated areas will reduce the effectiveness of the treatment. The best results from Galigan 2E are from applications on established beds that are left undisturbed during the time period for which weed control is desired.

### **Transplanted Garlic**

Transplanted garlic is most tolerant of a postemergence application immediately after transplanting. For all states except the Northeastern states listed under the **Dosage – Seeded Garlic** section, an application of up to 2 pints (0.5 lbs active) per acre within two days after transplanting may be made. If less than 2 pints per acre are applied, a second application can be made two weeks or more after transplanting. Do not exceed the maximum use rate of 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season.

For transplanted garlic in the Northeastern states, apply the same rates listed in the **Dosage-Seeded Garlic** section within two days after transplanting.

Dosages listed are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

 Band Width (in inches)
 X
 Rate per Broadcast Acre
 =
 Amount Needed per Acre for Banded Application

#### **Weeds Controlled**

Galigan 2E will provide postemergence control of the following weeds when applied at the specified dosage and leaf stage (2 to 4 leaves).

Carnarygrass (Annual) Eveningprimrose, Cutleaf Groundsel, Common Mallow, Little (Malva) Nightshade, Black Pigweed, Prostrate\* Pigweed, Redroot\* Puncturevine Purslane, Common\* Rocket, London Sage, Lanceleaf Shepherdspurse\* Sowthistle, Annual

#### **Timing and Method of Application**

For best postemergence control of susceptible weeds, apply when the weeds are in the 2- to 4-leaf stage. Application of Galigan 2E after the weeds exceed the maximum leaf stage may result in reduced weed control. More than one postemergence application may be necessary to control subsequent weed flushes. Mix Galigan 2E thoroughly with clean water at specified concentration and apply in a minimum of 40 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Accurately calibrate spray equipment prior to each use. Avoid drift to all other crops and nontarget areas. Thoroughly flush the spray equipment (tank, hose, pump, boom) with water before and after each use. Residual Galigan 2E remaining in spray equipment may damage other crops.

#### Garlic

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- In all states except Northeastern states, do not start spraying until the garlic plants (direct-seeded) have two (2) fully developed true leaves. In the Northeastern states (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont), do not start spraying until the garlic (direct-seeded) have three (3) fully developed true leaves. Applications made prior to the specified garlic development stage can result in serious injury.
- Do not apply more than a total of 2 pints (0.5 lbs active) per acre of Galigan 2E during one use season.
- Do not apply within 60 days of harvest.
- Use only on dry bulbs garlic.
- Do not apply to garlic grown for seed.
- Tank mixtures of Galigan 2E with oils, surfactants, liquid fertilizers, or pesticides may result in enhanced crop response-injury and are the responsibility of the user.
- Do not apply Galigan 2E preemergence to direct-seeded garlic except in California.
- Do not apply to garlic plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes, or diseases.

# GRASSES GROWN FOR SEED OREGON & WASHINGTON ONLY

# **Product Information**

Use Galigan 2E for late preemergence through early postemergence control/suppression of annual broadleaf weeds, annual grasses, and the seedling stage of perennial grasses, including volunteer seedlings, in established perennial grasses grown for seed. A minimum of 12 months of good growing conditions is required from the time of planting new stands of perennial grasses or until the perennial grasses are sufficiently well established (a minimum of 6 tillers or more) to be treated with Galigan 2E.

**Note:** Due to the close proximity of native prairie remnants to agricultural areas and the potential for these areas to be adversely affected by herbicides through drift or possible runoff/soil movement, do not apply Galigan 2E directly to native prairie habitats. Maintain dosage rates at the lower end of the use rate range if effective seedling control can be achieved in an effort to lessen potential impacts to endangered species.

# **Crop Tolerance**

The application of Galigan 2E to established perennial grasses will result in a chlorosis (yellowing) of the vegetation within two weeks after treatment. Some crop response symptoms may be present for up to three months following application. The use of Galigan 2E can also result in a substantial reduction in vegetative growth by perennial grasses during the winter. Leaf chlorosis and reduction of vegetative growth is a typical and normal response, and seed yield of healthy, vigorous perennial grasses is typically not affected by fall application of Galigan 2E. The grower accepts that conditions under which seed yield may be reduced are not fully understood and that a reduction in seed yield may occur. DO NOT GRAZE FIELDS THAT HAVE BEEN TREATED WITH GALIGAN 2E AS ILLEGAL RESIDUES MAY BE PRESENT IN THE VEGETATIVE FORAGE. Grazing may also magnify crop injury and reduce the seed yield.

Crop tolerance to Galigan 2E can be improved by limiting the amount of leaf tissue present on the established perennial grasses at time of application by such methods as propane flaming, intensive mechanical clipping (crew cutting), or livestock grazing prior to application.

#### **Timing**

Early treatment is important for control of seedling grasses. Applications of Galigan 2E at the onset of grass seed germination during the initial fall rains or fall sprinkler irrigation (late preemergence) or at the one-leaf growth stage (early postemergence) can provide somewhat better

<sup>\*</sup>Specific weeds controlled at rates specified for use in Northeastern States (see Dosage section).

control of volunteer crop seedlings than applications at the two-leaf stage. Ample soil moisture soon after application is required for optimum performance against seedling grasses.

Applications to seedling grasses between the two- and six-leaf stage can result in partial control, varying with species. Single applications made to seedlings between the two-and six-leaf growth stages will cause injury and stunting, but regrowth will occur. If seedlings have not died within three to four weeks after treatment with Galigan 2E and healthy green regrowth is visible, a second application may be needed. Galigan 2E will not control established perennial grasses or seedlings of most annual and perennial grasses beyond the six-leaf stage.

#### Method of Application

Apply as a broadcast application in a minimum spray volume of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at a minimum spray pressure of 30 psi. Do not exceed maximum spray pressure of 60 psi. Spray equipment calibrated carefully before each use. Add a nonionic surfactant containing 80% active ingredient cleared for growing crops with Galigan 2E at the rate of 0.12 to 0.5% spray volume for improved control of emerged seedlings. Maintain agitation until spraying is complete.

Tank mixtures of Galigan 2E with other registered herbicides can result in enhanced crop injury. If a tank mixture is to be applied, make applications only to healthy, vigorous stands of perennial grasses. The decision to apply a tank mixture containing Galigan 2E is at the sole discretion of the grower at the grower's risk.

#### Dosage

Use Galigan 2E on the following crops at the rates given:

Kentucky bluegrass, tall fescue, orchardgrass, bentgrass, and perennial ryegrass: In Oregon, apply an initial application of Galigan 2E at a rate of 0.5 to 1.5 pints (0.125 to 0.375 lbs active) per acre. Do not apply more than 1.5 pints (0.375 lbs active) of Galigan 2E per acre as a result of two applications in a single growing season. Make the initial application before the weed (or grass) seedlings to be controlled exceed the two-leaf growth stage (typically prior to December 15). A second application may be required for optimal control/suppression. For increased control of volunteer ryegrass seedlings in perennial ryegrass, do not apply more than 1.2 lbs active of diuron (Diuron 4L) per acre in tank mixture with Galigan 2E per season.

**In Washington**, apply a maximum of 1.5 pints (0.375 lbs active) per acre of Galigan 2E after harvest. A single application of 0.5 to 1.5 pints (0.125 to 0.375 lbs active) per acre can be made. The maximum rate of 1.5 pints (0.375 lbs active) per acre of Galigan 2E can be split and the initial application applied before the weed (or grass) seedlings exceed the two-leaf growth stage **and** no later than December 15. The final application must be completed prior to January 15.

Fine fescues (Chewings, creeping red, and hard types): In Oregon, apply a single application of Galigan 2E at 0.5 pints (0.125 lbs active) per acre per season. Apply before the weed seedlings to be controlled exceed the two-leaf growth states (Use Period: September 1 to December 15).

#### **Weeds Controlled**

Galigan 2E will provided control or suppression of the following weeds and volunteer crops when applied between the onset of germination and the two-leaf seedling growth stage:

Bentgrass Fescue, Hard
Bluegrass, Annual Fescue, Rattail
Bluegrass, Kentucky Fescue, Tall
Bluegrass, Roughstalk Orchardgrass
Brome, California (mountain)\* Ryegrass, Italian
Fescue, Fine (creeping red and Chewings) Ryegrass, Perennial

Galigan 2E will also control or suppress many annual broadleaf weeds. Galigan 2E will not control/suppress established perennial grasses or seedlings of most annual and perennial grasses beyond the 6-leaf stage.

# Grassed Grown for Seed (Oregon & Washington Only) Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not graze livestock in treated fields within 150 days of application.
- Do not apply Galigan 2E within 150 days of harvest.
- Apply Galigan 2E only by ground application equipment.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not apply when weather conditions favor drift. Avoid drift to all non-target areas. Galigan 2E is phytotoxic to plant foliage.
- Do not treat ditch banks or waterways with Galigan 2E.
- A 25 ft vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.
- In Washington only: This product is highly toxic to aquatic invertebrates, aquatic plants, wildlife, and fish. Galigan 2E must not be used under this label where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program web site at http://agr.wa.gov/PestFert/EnvResources/EndangSpecies.htm, or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered. Consult other sections of this label for additional restrictions and precautions to protect aquatic organisms.

# GRASSES GROWN FOR SEED PERENNIAL RYEGRASS AND TALL FESCUE GROWN FOR SEED OREGON ONLY

# **Product Information**

Use Galigan 2E for early postemergence suppression/control of various annual broadleaf weed seedlings in new plantings of fall seeded perennial ryegrass and tall fescue that has at least one to two tillers. Applications to seedling plants that have not yet been tillered can result in severe crop injury or stand loss (plant death).

**Note:** Due to the close proximity of native prairie remnants to agricultural areas and the potential for these areas to be adversely affected by herbicides through drift or possible runoff/soil movement, do not apply Galigan 2E directly to native prairie habitats. Maintain dosage rates at the lower end of the use rate range if effective seedling control can be achieved in an effort to lessen potential impacts to endangered species.

<sup>\*</sup>These species are suppressed but not fully controlled by Galigan 2E.

#### **Crop Tolerance**

The application of Galigan 2E to fall seeded perennial ryegrass and tall fescue (that have at least one to two tillers) will result in a chlorosis (yellowing) of the vegetation within two weeks after treatment. Some crop response symptoms may be present for up to three months following application. The use of Galigan 2E can also result in a substantial reduction in vegetative growth by perennial grasses during the winter. Leaf chlorosis and reduction of vegetative growth is a typical and normal response, and seed yield of healthy, vigorous perennial grasses is typically not affected by fall application of Galigan 2E. It is accepted by the grower that conditions under which seed yield may be reduced are not fully understood and that a reduction in seed yield may occur. DO NOT GRAZE FIELDS WITHIN 150 DAYS OF TREATMENT WITH GALIGAN 2E AS ILLEGAL RESIDUES MAY BE PRESENT IN THE VEGETATIVE FORAGE. Grazing can also magnify crop injury and reduce the seed yield.

#### **Method of Application**

Apply as a broadcast application in a minimum spray volume of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at a minimum spray pressure of 30 psi. Do not exceed maximum spray pressure of 60 psi. Calibrate spray equipment carefully before each use. Add a nonionic surfactant containing 80% active ingredient cleared for growing crops with Galigan 2E at the rate of 0.12 to 0.5% spray volume for improved control of emerged seedlings. Maintain agitation until spraying is complete.

Tank mixtures of Galigan 2E with Norton 4SC can result in enhanced crop injury. If a tank mixture is to be applied, make applications only to healthy, vigorous stands of perennial grasses. The decision to apply a tank mixture containing Galigan 2E is at the sole discretion of the grower at the grower's risk.

# Dosage

Apply a single application of Galigan 2E at a rate of 2 to 3 ounces (0.025 to 0.0375 lbs active) per acre, either alone or tank mixed with up to 3 pints of Norton 4SC per acre. Some temporary crop response may occur, but typically it is only a transient effect and should not adversely impact yield. DO NOT APPLY TO NEWLY PLANTED STANDS THAT ARE UNDER STRESS FROM ANY CAUSE AS THERE IS AN ENHANCED OPPORTUNITY FOR CROP INJURY TO OCCUR. Control from the Galigan 2E is primarily directed at emerged seedling broadleaf weeds such as speedwell and groundsel, but control or suppression of other species is possible if tank mixed with Norton 4SC. Overlaps (2X applications) will cause significant crop injury but should not result in excessive stand losses if the crop plants are at least one to two tillers when the applications are made.

#### **Weeds Controlled**

Galigan 2E will provide control or suppression of the following weeds and volunteer crops when applied between the onset of germination and the two-leaf seedling growth stage:

Groundsel, common Speedwell

Galigan 2E will also control or suppress many other annual broadleaf weeds.

# Perennial Ryegrass and Tall Fescue -Oregon Only

**Fall Seeded New Plantings Only** 

#### Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not graze livestock in treated fields within 150 days of application.
- Do not apply Galigan 2E within 150 days of harvest.
- Apply Galigan 2E only by ground application equipment.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not apply when weather conditions favor drift. Avoid drift to all non-target areas. Galigan 2E is phytotoxic to plant foliage.
- Do not treat ditch banks or waterways with Galigan 2E.

#### GUAVA HAWAII ONLY

# **Product Information**

Galigan 2E is effective as a preemergence herbicide when used alone for the control of certain annual broadleaf weeds in bearing and nonbearing guava plantings.

For postemergence control of certain grassy and broadleaf weeds, a tank mixture of either paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E can be applied to seedling weeds. Check individual labels to determine suitability and use rates for crop.

# Galigan 2E Used Alone

# Dosage

Use Galigan 2E for postemergence control of susceptible weeds at 2 to 8 pints (0.5 to 2.0 lbs active) per broadcast acre.

For preemergence control of susceptible weeds, use 5 to 8 pints (1.25 to 2.0 lbs active) of Galigan 2E per broadcast acre.

# **Weeds Controlled Preemergence**

Apply 5 to 8 pints (1.25 to 2.0 lbs active) of Galigan 2E per broadcast acre.

Ageratum Buttonweed Crotalaria Purslane, Common Spurge, Garden

# **Weeds Controlled Postemergence**

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre. Applications to weeds beyond the 4-leaf stage may result in partial control.

Purslane, Common Spurge, Garden

# **Timing and Method of Application**

Apply treatments only to healthy guava trees. Care must be taken to prevent direct spray or drift from contacting green stems, fruit, or foliage as injury may result. Make applications only after new foliage has hardened off or injury may result.

As a preemergence or postemergence treatment to weeds, apply in a minimum of 15 gallons of water per acre. Use higher volumes to assure adequate coverage in high densities of emerged weeds or heavy trash. Direct Galigan 2E to the soil and the base of the tree. Use a low-pressure sprayer equipped with a breakaway boom and flat fan or off-center (OC) nozzles. Position an off-center nozzle at the end of the

boom. Use spray shields in young trees.

# Tank Mixes with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

#### Dosage

For postemergence control of susceptible grassy and broadleaf weeds in guava plantings, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used. Apply at specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

# **Weeds Controlled Postemergence**

In addition to the weeds controlled by Galigan 2E used alone, control of susceptible weeds listed in the respective labels for the following products is also obtained:

Paraquat (Parazone 3SL)

Glyphosate (Glyphogan)

# Guava - Hawaii Only

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 8 pints (2.0 lbs active) per broadcast acre of Galigan 2E in a single application or more than 16 pints (4.0 lbs active) per season.
- Do not apply Galigan 2E within 1 day of harvest.
- Direct spray toward the base of the trees. Avoid direct plant contact.
- Apply Galigan 2E or any of the combinations specified on this label only to healthy growing trees.
- Make applications of Galigan 2E only after new foliage has hardened off.

#### **HORSERADISH**

# **Product Information**

Galigan 2E is a selective herbicide for preemergence control of certain broadleaf weeds. Applications must be made after the horseradish roots have been planted and prior to plant emergence. (Emerged plants that receive direct or indirect (drift) spray contact will be injured.) It may be desirable to cultivate immediately prior to application to remove germinated weeds.

Do not use Galigan 2E on horseradish plantings that are weak or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought, or excessive moisture.

# Dosage

Apply Galigan 2E at a rate of 2 pints (0.5 lbs active) per broadcast acre as a preemergence application to horseradish.

# **Weeds Controlled**

Galigan 2E will provide preemergence control of the following weeds when used at the specified dosage:

Lambsquarters, Common Shepherdspurse Pigweed, Redroot Smartweed, Pennsylvania

Purslane, Common

# **Timing and Method of Application**

Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in a minimum of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan nozzles at 20 to 40 psi. Accurately calibrate spray equipment prior to each use.

# Horseradish

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

• Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per broadcast acre as a single application, and do not exceed 6 pints (1.5 lbs active) per broadcast acre per crop season.

#### **JOJOBA**

# **Product Information**

Galigan 2E is a selective herbicide for postemergence and preemergence control of certain broadleaf weeds in jojoba. Apply Galigan 2E as a post-directed spray to the base of the jojoba plant to avoid possible phytotoxicity to the jojoba foliage. Over-the-top applications may exhibit burning, crinkling, or bronzing of jojoba foliage, particularly to the youngest leaves, flowers, or buds present at the time of application.

# Dosage

Use Galigan 2E for postemergence and preemergence control of susceptible seedling weeds (up to 12 inches in height) at 6 pints (1.5 lbs active) per broadcast acre. For optimum residual control, apply during the fall or winter. For early postemergence control of susceptible seedling weeds (less than 8 inches in height), apply Galigan 2E at a rate of 4 pints (1.0 lbs active) per broadcast acre.

# **Weeds Controlled Preemergence**

Burclover Lettuce, Prickly

Fiddleneck, Coast
Filaree, Broadleaf
Filaree, Redstem
Filaree, Whitestem

Mallow, Little (Malva, Cheeseweed)
Pigweed, Redroot
Purslane, Common
Redmaids

Filaree, Whitestem
Groundsel, Common
Henbit
Knotweed, Prostrate
Redmaids
Rocket, London
Shepherdspurse
Sowthistle, Annual

# **Weeds Controlled Postemergence**

Lambsquarters, Common

Fiddleneck, Coast

Filaree, Braodleaf\*\*

Filaree, Redstem\*\*

Filaree, Whitestem\*\*

Miner's Lettuce

Nettle, Burning

Pigweed, Redroot\*

Redmaids

Groundsel, Common\*
Henbit
Mallow, Little (Malva, Cheeseweed)

Shepherdspurse Sowthistle, Annual

- \*Highest rate may be required for acceptable postemergence control.
- \*\* Galigan 2E at the 6-pint rate (1.5 lbs active) will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

#### **Timing and Method of Application**

Apply the first application of Galigan 2E after jojoba plants have grown to a minimum 6-inch height or greater. Apply additional applications as needed for post and preemergence weed control. Weed height should not exceed 12 inches or unsatisfactory weed control may result.

Apply Galigan 2E in a minimum spray volume of 40 gallons of water per acre depending upon density of emerged weeds. Increase spray volume as weed height and density increase. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use.

#### Jojoba

# **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Avoid direct spray or drift contact of Galigan 2E with jojoba flowers or buds as severe injury may result.
- Do not apply more than 6 pints (1.5 lbs active) per broadcast acre.

# MINT (SPEARMINT, PEPPERMINT)

# CALIFORNIA, IDAHO, MONTANA, NEVADA, OREGON, SOUTH DAKOTA, UTAH AND WASHINGTON ONLY

#### **Product Information**

Galigan 2E is a selective herbicide for the control of certain annual grasses and broadleaf weeds in spearmint and peppermint grown in California, Idaho, Montana, Nevada, Oregon, South Dakota, Utah, and Washington on mineral soils. Make applications to spearmint and peppermint that are dormant.

#### **Method of Application**

Application must be made prior to new spring growth or severe crop injury may result. Mix Galigan 2E thoroughly with clean water at specified concentration and applied at 20 to 40 psi in 20 to 40 gallons of water per acre.

# **Weeds Controlled**

When Galigan 2E is applied as a dormant application at specified dosages in spearmint and peppermint, the following annual weeds are controlled:

Bedstraw, Catchweed Oats, Wild\*
Bluegrass, Annual\* Orach, Red

Flixweed Pepperweed, Yellowflower

Groundsel, Common Pigweed, Redroot
Lambsquarters, Common Ryegrass, Italian\*
Lettuce, Prickly (China Lettuce) Shepherdspurse
Mustard, Blue (Purple Mustard) Sowthistle, Annual
Mustard Tumble (Jim Hill Mustard) Tansymustard
Nightshade, Hairy Thistle, Russian

# **Western Oregon**

# Peppermint - Willamette Valley

Apply 2 to 3 pints (0.5 to 0.75 lbs active) of Galigan 2E from November to February to dormant peppermint only. Treatments in January or February provide better residual preemergence control of annual broadleaf weeds. Do not expect full season weed control from this treatment.

# DO NOT APPLY GALIGAN 2E IN THE WILLAMETTE VALLEY TO MINT THAT HAS BEEN PLOWED.

# Oregon and Washington (East Of Cascades), California, Montana, Idaho, Nevada, South Dakota, and Utah Spearmint and Peppermint

Apply 4 to 6 pints (1.0 to 1.5 lbs active) of Galigan 2E from December through March to dormant mint only. Later winter applications will provide maximum activity on summer weeds. Summer grass control may be inconsistent. For best results, fall-plowed fields must be harrowed to provide a smooth surface prior to application. Do not harrow plowed fields after Galigan 2E has been applied as soil disturbance will decrease the herbicidal effectiveness. In furrow-irrigated fields, corrugating must be done prior to application. Corrugating after application can cover treated rows with untreated soil resulting in poor weed control.

# Mint (Spearmint and Peppermint)

(For Use in California, Idaho, Montana, Nevada, Oregon, South Dakota, Utah and Washington) Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTICTIONS listed at the beginning of this label.

- Do not apply more than one application of Galigan 2E per season.
- Apply Galigan 2E only to healthy spearmint and peppermint. Do not apply to spearmint or peppermint that has been weakened by
  disease, drought, flooding, excessive fertilizer, soil salts, previously applied pesticides, nematodes, soil insects, or winter injury as severe
  injury may result.
- The use of any treated plants for feed or forage and the feeding or grazing of any treated area is prohibited.

# MINT (SPEARMINT, PEPPERMINT) GROWN ON MUCK SOILS ONLY IN INDIANA, MICHIGAN, MONTANA, NORTH DAKOTA, SOUTH DAKOTA, WISCONSIN

#### **Product Information**

Galigan 2E is a selective herbicide that can be used for the control of certain annual broadleaf weeds in dormant spearmint and peppermint. Make applications prior to the emergence of spearmint and peppermint that is grown on muck soils. Applications made after the spearmint

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<sup>\*</sup>Control of annual grasses is best obtained when Galigan 2E is applied prior to emergence. Postemergence control of winter annual grasses is unsatisfactory if applications are made after the 1- to 2-leaf stage.

and peppermint emerge will result in severe injury.

Applications to first year spearmint and peppermint must be made within four (4) days of planting (sprigging) to prevent excessive injury.

# **Weeds Controlled Postemergence and Preemergence**

When Galigan 2E is applied at specified dosages in spearmint and peppermint, the following weeds are controlled:

Knotweed, Prostrate Purslane, Common

Pigweed, Redroot

#### Dosage

Apply Galigan 2E at a rate of 4 to 6 pints (1.0 to 1.5 lbs active ingredient) per acre. When used postemergence (to the weeds) add an 80% active nonionic surfactant at the rate of one quart per 100 gallons of spray solution. Make applications before the weeds exceed four inches. It is important that applications of Galigan 2E be made prior to the emergence of the spearmint and peppermint. Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in 20 to 40 gallons of water per acre. Apply at 20 to 40 psi.

### Mint (Spearmint, Peppermint)

(For Use On Mint Grown On Muck Soils Only In Indiana, Michigan, Montana, North Dakota, South Dakota, Wisconsin) Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTICTIONS listed at the beginning of this label.

- Do not apply more than one application of Galigan 2E per season.
- Apply Galigan 2E only to spearmint and peppermint grown on muck soils containing 20% or greater organic matter-
- Always apply Galigan 2E to healthy spearmint and peppermint. Do not apply Galigan 2E to spearmint or peppermint that has been
  weakened by disease, nematodes, soil insects, or winter injury, as severe injury may result.
- Do not apply Galigan 2E to spearmint or peppermint that has emerged.
- Applications of Galigan 2E to first-year spearmint or peppermint must made within four (4) days of planting (sprigging).
- The use of any treated plants for feed or forage and the feeding or grazing of any treated areas is prohibited.

#### **NON-CROP USE**

NON-FOOD PRODUCING, NON-CULTIVATED AGRICULTURAL OR NON-AGRICULTURAL AREAS (INCLUDING HIGHWAY AND UTILITY RIGHTS-OF-WAY, INDUSTRIAL SITES, TANK FARMS, STORAGE AREAS, AIRPORTS, FENCE ROWS, AND FARMSTEADS, ETC.)

#### **Product Information**

Use Galigan 2E for postemergence and preemergence control of certain broadleaf weeds in non-crop areas.

# **Weeds Controlled Preemergence**

Apply 5 to 8 pints (1.25 to 2.0 lbs active) per broadcast acre.

Burclover Mallow, Little Cheeseweed (Malva) Mile-a-Minute Fiddleneck, Coast Pigweed, Redroot Filaree, Broadleaf Purslane, Common Filaree, Redstem Redmaids Groundsel. Common Rocket, London Henbit Shepherspurse Knotweed, Prostrate Sowthistle, Annual

Lambsquarters, Common Witchweed (North and South Carolina)\*

Lettuce, Prickly

# Weeds Controlled Postemergence (weeds up to 4 inches high)

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre. Applications to weeds beyond the 4-inch stage may result in partial control

Cheeseweed (Malva)

Fiddleneck, Coast

Filaree, Broadleaf

Filaree, Redstem

Groundsel, Common

Groundsel, Common

Henbit

Miner's Lettuce

Nettle, Burning

Pigweed, Redroot

Purslane, Common

Redmaids

Shepherdspurse

Mallow, Little

Sowthistle, Annual

Mile-a-Minute Witchweed (North and South Carolina)\*

# **Timing and Method of Application**

Apply Galigan 2E in a minimum of 40 gallons of water per acre (10 gallons of water per acre for witchweed control in North and South Carolina). Best preemergence results are achieved when spray is applied to a relatively weed free soil surface. Increase the volume of water used as the weeds become taller and more dense. Use a low-pressure sprayer equipped with flat fan nozzles. Calibrate spray equipment carefully before each use. Add an 80% active nonionic surfactant to the spray mixture at a rate of 0.125% v/v (1 pint per 100 gallons of spray mix) when using for the control of witchweed in North and South Carolina.

# Tank Mixes with Galigan 2E

**IMPORTANT**: Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply. **Dosage** 

For preemergence control of susceptible grassy and broadleaf weeds, a tank mixture of Galigan 2E with diuron (Diuron 4L) or simazine can be applied. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

For postemergence control of susceptible grass and broadleaf weeds, a tank mixture with paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

<sup>\*</sup>Applications must be applied to witchweed plants before blooms form to prevent the production of viable seed.

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not feed or allow animals to graze on any areas treated with Galigan 2E.
- Do not apply more than 8 pints in a single application.

# **ONIONS**

#### **Product Information**

Galigan 2E is a selective herbicide for postemergence application to direct-seeded and transplanted onions for early postemergence control of certain annual broadleaf and grass weeds. Initial spray application must be made only when the onions have reached the development stage specified in the **Dosage** section and the **Specific Use Restrictions** section of this label. On onion transplants, spray as soon before or after transplanting as practical. Galigan 2E can cause necrotic lesions, twisting, pigtailing, or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the development stage of the onion plants as specified in the **Dosage** section and the **Specific Use Restrictions** section of this label.

#### Dosage

#### **Direct Seeded Onions**

Northeastern States (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont)

Use Galigan 2E for postemergence control at 2 to 4 fluid ounces (0.03 to 0.06 lbs active) per acre when applied postemergence to seeded onions that have at least three (3) true leaves. Multiple treatments at the aforementioned rate can be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season. Applications can be made in a minimum of 40 gallons of water per acre. The preharvest interval is 45 days.

# Western States (Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, and Washington)

Use Galigan 2E for postemergence control at 0.5 pints to 1 pint (0.125 to 0.25 lbs active) per acre when applied postemergence to onions that have at least two (2) true leaves. Multiple treatments at the aforementioned rates can be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season. Applications can be made in a minimum of 40 gallons of water per acre. The preharvest interval is 45 days.

**Sprinkler Chemigation:** For application using sprinkler irrigation (solid set, portable lateral, center pivot, continuous lateral move, side (wheel) roll) systems, apply specified dosage of Galigan 2E per acre as described in this section. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION** when making applications using sprinkler irrigation systems.

### **All Other States**

Use Galigan 2E for postemergence control at 0.5 pints (0.125 lbs active) per acre when applied postemergence to onions that have *at least two (2) true leaves*. Multiple treatments at the aforementioned rates may be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season. Applications can be made in a minimum of 40 gallons of water per acre. The preharvest interval is 45 days.

#### **Transplanted Onions**

**Pre-Transplant:** (Not for use in Northeastern or Western states except as specifically directed on other approved supplemental labeling.) Use Galigan 2E as a pre-transplant application at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre. Applications must be made after completion of soil preparation but prior to transplanting of onion plants. Complete transplanting with minimal soil disturbance. Leave treated soil surfaces undisturbed after transplanting to obtain greatest benefit of Galigan 2E on susceptible annual broadleaf weeds during the time period for which weed control is desired. However, timely cultivations after weed emergence will assist in weed control. If less than 2 pints per acre are applied as a preplant treatment, postemergence applications can be made as instructed in the **Dosage-Direct Seeded Onions** section of this label. Do not exceed the maximum use rate of 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season. Applications may be made in a minimum of 40 gallons of water per acre.

Dosages listed are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

Band Width (in inches)
Row Width (in inches)

X

Rate per
Broadcast Acre

=

Amount Needed per Acre
for Banded Application

**Post-Transplant:** Transplanted onions are most tolerant of a postemergence application immediately after transplanting. For all states except the Northeastern states listed under the **Dosage-Direct Seeded Onions** section above, an application of up to 2 pints (0.5 lbs active) per acre within two days after transplanting may be made. If less than 2 pints per acre are applied, a second application can be made two weeks or more after transplanting. Do not exceed the maximum use rate of 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season. Applications may be made in a minimum of 40 gallons of water per acre.

**Sprinkler Chemigation**: is limited to California, Oregon, and Washington: For application using sprinkler irrigation (solid set, portable lateral, center pivot, continuous lateral move, side (wheel) roll) systems, apply up to 1 pint (0.25 lbs active) in California and Oregon and up to 2 pints (0.5 lbs active) in Washington of Galigan 2E per acre as described in this section. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION** when making applications using sprinkler irrigation systems.

For transplanted onions in the Northeastern states, apply the same rates listed in the **Dosage-Direct Seeded Onions** section within two days after transplanting.

#### **Weeds Controlled**

Galigan 2E will provide postemergence control of the following weeds when applied at the specified dosage and leaf stage (2 to 4 leaves):

Carnarygrass (Annual) Eveningprimrose, Cutleaf \* Groundsel, Common Mallow, Little (Malva) Nightshade, Black Pigweed, Prostrate\*\* Pigweed, Redroot\*, \*\* Puncturevine
Purslane, Common\*,\*\*
Rocket, London
Sage, Lanceleaf
Shepherdspurse\*
Sowthistle, Annual

- \* Weeds controlled when applied as a pre-transplant application. In addition, Galigan 2E at the rate of 1 to 2 pints per acre will provide control/suppression of carpetweed, Pennsylvania smartweed, galinsoga, common lambsquarters, and wild mustard. Applications of Galigan 2E to muck soils may result in partial control or suppression of the weeds listed.
- \*\* Specific weeds controlled at rates specified for use in Northeastern states (see **Dosage** section).

# **Timing and Method of Application**

For best postemergence control of susceptible weeds, apply when the weeds are in the 2- to-4-leaf stage. Application of Galigan 2E after the weeds exceed the maximum leaf stage may result in reduced weed control. More than one postemergence application may be necessary to control subsequent weed flushes.

Mix Galigan 2E thoroughly with clean water at specified concentration and applied in a minimum of 40 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Accurately calibrate spray equipment prior to each use. Avoid drift to all other crops and nontarget areas. Thoroughly flush the spray equipment (tank, hose, pump, boom) with water before and after each use. Residual Galigan 2E remaining in the spray equipment may damage other crops.

#### Onions

#### Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- In all states except Northeastern states, do not start spraying until the onions (direct-seeded) have two (2) fully developed true leaves. In the Northeastern states (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont), do not start spraying until the onions (direct-seeded) have three (3) fully developed true leaves. Applications made prior to the specified onion development stage may result in serious injury.
- Do not apply more than a total of 2 pints (0.5 lbs active) per acre of Galigan 2E during one use season.
- Do not apply within 45 days before harvest, except for chemigation/sprinkler irrigation in California. Do not harvest for 60 days after chemigation/sprinkler irrigation in California.
- Use only on dry bulb onions.
- Do not apply to onions grown for seed except as specified below or on other approved supplemental labeling.
- Tank mixtures of Galigan 2E with oils, surfactants, liquid fertilizers, or other pesticides may result in enhanced crop response/injury and are the responsibility of the user.
- Do not apply Galigan 2E preemergence to direct-seeded onions.
- Do not apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes, or diseases.

#### **ONIONS GROWN FOR SEED**

#### **Product Information**

Galigan 2E is a selective herbicide for postemergence application to onions grown for seed for early postemergence control of certain annual broadleaf and grassy weeds. Make the initial spray application only when the onions have reached the development stage specified in the **Dosage** section and the **Specific Use Restrictions** section of this label. Galigan 2E can cause necrotic lesions, twisting, pigtailing, or stunting of the onion plants. Injury will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the development stage of the onion plants as specified in the **Dosage** section and the **Specific Use Restrictions** section of this label.

**NOTE:** Some varieties or inbred lines of onions may be more susceptible to Galigan 2E. Care must be taken to insure that the particular onion variety or line being grown is tolerant to Galigan 2E. Test all onion varieties or lines in limited areas to ensure an adequate level of crop tolerance prior to an application for postemergence weed control.

# **Weeds Controlled**

Galigan 2E will provide postemergence control of the following weeds when applied at the specified dosage and leaf stage (2 to 4 leaves):

Canarygrass (Annual)
Eveningprimrose, Cutleaf
Groundsel, Common
Mallow, Little (Malva)
Nightshade, Black
Pigweed, Prostrate\*
Pigweed, Redroot\*

Puncturevine
Purslane, Common\*
Rocket, London
Sage, Lanceleaf
Shepherdspurse
Sowthistle, Annual

\*Specified weeds controlled at rates specified for use in Northeastern states (see Dosage section).

# Dosage

Northeastern States (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont)

Use Galigan 2E for postemergence control at a maximum use rate of 2 fluid ounces (0.03 lbs active) per acre when applied postemergence to seeded onions that have at least four (4) true leaves. Multiple treatments at the aforementioned rate may be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E as a result of multiple applications in one season.

# **All Other States**

Use Galigan 2E for postemergence control at a maximum use rate of 0.5 pints (0.125 lbs active) per acre when applied postemergence to onions that have at least three (3) true leaves. Multiple treatments at the aforementioned rate may be applied. Do not apply more than 2 pints (0.5 lbs active) per broadcast acre of Galigan 2E in one season.

# **Timing and Method of Application**

For best postemergence control of susceptible weeds, apply when the weeds are in the 2- to-4-leaf stage. Application of Galigan 2E after the weeds exceed the maximum leaf stage may result in reduced weed control. More than one postemergence application may be necessary to control subsequent weed flushes.

Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in a minimum of 40 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Do not exceed 40 psi. Accurately calibrate spray equipment prior to each use. Thoroughly flush the spray equipment (tank, hose, pump, boom) with water before and after each use. Residual Galigan 2E remaining in the spray equipment may damage other crops.

Chemigation: For application using sprinkler irrigation (solid set or portable lateral) systems, apply specified dosage of Galigan 2E per acre

as described above. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION** when making applications using sprinkler irrigation systems.

DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT. AVOID DRIFT TO ALL NONTARGET AREAS. GALIGAN 2E IS PHYTOTOXIC TO PLANT FOLIAGE.

#### Onions Grown For Seed Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- In all states, do not start spraying until the onions have reached the minimum leaf stage specified in the Dosage section of this label.
   Applications made prior to specified onion development stage may result in serious injury.
- Do not apply more than a total of 2 pints (0.5 lbs active) per acre of Galigan 2E during one use season.
- Do not apply within 60 days of harvest.
- Do not mix Galigan 2E with oils, surfactants, liquid fertilizers, or other pesticides except as specified on the Galigan 2E label.
- Do not apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.

#### PAPAYA HAWAII ONLY

#### **Product Information**

Galigan 2E is a selective herbicide for use as a post-directed application for broadleaf weed control in papaya. Occasionally, after the use of Galigan 2E, a spotting, crinkling, or flecking may appear on the leaves of the papaya. Leaves or green stalks that receive direct or indirect (drift) spray contact will be injured.

Do not use Galigan 2E on papaya plantings that are weak or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought, or excessive moisture.

#### **Dosage and Timing**

Apply Galigan 2E at a rate of 4 pints (1.0 lbs active) per broadcast acre as a directed spray to the orchard floor. The initial application must not occur earlier than 4 months after transplanting or 6 months after direct seeding, and after the papaya has reached a minimum height of 4 feet. Applications may be repeated at approximate 4-month intervals.

Galigan 2E provides effective control of susceptible weed seedlings in the 4-leaf stage. Do not apply more than 4.0 pints (1.0 lbs active) of Galigan 2E per broadcast acre in a single application or more than 12.0 pints (3.0 lbs active) per broadcast acre per year as a result of multiple applications.

#### **Weeds Controlled**

Galigan 2E will provide preemergence and postemergence control of the following weeds when used at the specified dosage. Application to weeds beyond the 4-leaf stage may result in partial control:

Amaranth, Spiny Purslane, Common Spurge, Garden

#### **Method of Application**

Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in a minimum of 15 gallons of water per broadcast acre. Accurately calibrate spray equipment prior to each use.

Accurate, uniform placement of Galigan 2E is essential for effective weed control and to minimize crop injury. Galigan 2E must be applied as a directed spray to the orchard floor beneath the papaya plants. Do not allow the herbicide solution, spray, drift, or mist to contact green bark, stems, fruit, or foliage as injury may result. Galigan 2E must be applied using rigid precision ground sprayer equipment.

#### Papaya

#### Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not allow herbicide solution, spray, drift, or mist to contact green bark, stems, fruit, or foliage as injury may result.
- Do not apply more than 4.0 pints (1.0 lbs active) of Galigan 2E per broadcast acre in a single directed spray or more than 12 pints (3.0 lbs active) per broadcast acre per year as a result of multiple applications.
- Do not apply Galigan 2E within 1 day of harvest.
- For use only on papaya grown in Hawaii.

#### **ROSES (FIELD-GROWN) IN CALIFORNIA**

#### Product Information

Use Galigan 2E as a post-directed application for control of certain broadleaf weeds in established rose plantings. Use Galigan 2E for stool block ("permanent") plantings or rose plantings (field-grown, patio and tree roses) after bud grafted canes are at least 18-inches in length.

#### **Crop Tolerance**

Apply Galigan 2E only to roses with canes that are 18 inches or longer Applications to rose plants with canes less than 18-inches in length can result in severe crop injury. Spray contact with foliage can cause severe crop injury and must be avoided. Leaves that are accidentally sprayed will exhibit necrotic spotting and may drop from the plant. Heavy splashing rain/irrigation or excessive soil moisture after application also can produce leaf cupping, crinkling, stunting or defoliation.

**Important:** When applied as directed, field-grown roses are tolerant to Galigan 2E. It is impossible, however, to evaluate this product on all varieties, biotypes and cultivars of roses or under all possible growing conditions. Exercise reasonable judgment and caution with this product. Until familiar with results under user growing conditions, limit application of this product to a few plants in a small treated area to determine plant tolerance and extent of injury if such occurs, prior to initiating large-scale applications.

#### **Method of Application**

Apply Galigan 2E in a minimum of 25 to 40 gallons of water per broadcast acre. Use a low-pressure sprayer with nozzles directed at the base of the rose plants. The use of spray shields also to avoid spray contact with rose foliage. To minimize spray drift, use the lowest spray pressure suitable for the application equipment being used.

Galigan is phytotoxic to plant foliage. Avoid drift to all other crops and nontarget areas. Do not apply when weather conditions favor drift.

#### Dosage

For postemergence weed control, apply Galigan 2E at 2 to 4 pints (0.5 to 1.0 lbs active) per broadcast acre. Use the lower rate for the control of susceptible seedling weeds in the early postemergence stage up to the 4-leaf stage. Use the higher rate (1.0 lbs active) for weeds up to the 4-leaf stage. The addition of 1 quart of a nonionic surfactant per 100 gallons of spray mix will assist in spray coverage and wetting of weeds for postemergence coverage. Applications to weeds beyond the 4-leaf stage can result in partial control.

For preemergence weed control, Apply Galigan 2E at 2 to 4 pints (0.5 to 1.0 lbs active) per broadcast acre. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Seedling weeds are controlled as they come in contact with soil-applied herbicide during emergence.

#### **Weeds Controlled Preemergence**

Galigan 2E will provide control of the following weeds when applied at 2 to 4 pints (0.5 to 1.0 lbs active) per broadcast acre.

Beggarsticks, Nodding
Cheeseweed (Malva)
Morningglory, Annual
Morningglory, Ivyleaf
Nightshade, Black
Nightshade, Hairy
Pigweed, Redroot
Spurge, Spotted

#### **Weeds Controlled Postemergence**

Galigan 2E will provide control of the following weeds when applied at 2 to 4 pints (0.5 to 1.0 lbs active) per broadcast acre between the onset of germinating and the 4-leaf seedling growth stage. Partial control will likely result if weeds are beyond the 4-leaf seedling growth stage.

Cheeseweed (Malva)
Morningglory, Annual
Morningglory, Ivyleaf
Nightshade, Hairy
Pigweed, Redroot

Galigan 2E will also control or suppress many other annual broadleaf weeds.

#### Field-Grown Roses - California Only

#### Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 4 pints (1.0 lbs active) of Galigan 2E per broadcast acre per application or more than 8 pints (2.0 lbs active) per broadcast acre per growing season.
- Do not apply Galigan 2E in an enclosed greenhouse structure, as injury to plant foliage may result. Tank mixtures of Galigan 2E with oils, liquid fertilizers or other pesticides can result in enhanced crop response/injury and are the responsibility of the user.
- Do not feed or graze animals on any area treated with Galigan 2E.
- Galigan 2E is phytotoxic to plant foliage. Do not apply when weather conditions favor drift to non-target areas.
- Do not apply Galigan 2E to rose plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.
- Chemigation: Do not apply this product through any type of irrigation system.

#### SOYBEANS NOT FOR USE IN CALIFORNIA

#### **Product Information**

Galigan 2E is effective as a preemergence and postemergence (post-directed) herbicide for the control of broadleaf weeds in soybeans. Applications can be made early preplant in conservation tillage soybeans, preemergence in no-till (double-crop) and conventional soybeans, or post-directed in conventional till soybeans. Seedling weeds are controlled as they come in contact with the herbicide either during emergence or through a post-directed application. Follow specific use directions and restrictions for specified use and timing of applications. Soybeans are tolerant to preemergence and post-directed applications of specified dosages of Galigan 2E; however, under certain conditions, Galigan 2E can cause temporary injury. Heavy splashing rain shortly after crop emergence or cold, wet soil conditions during early growth stages can produce leaf cupping and crinkling. When injury occurs, it is limited to the first few leaves that develop shortly after crop plants emerge from the soil. Soybeans recover from this injury and yields are not adversely affected. Soybean leaves that are accidentally sprayed during a post-directed application will exhibit necrotic spotting and injury to the soybean plant. Therefore, care must be exercised to avoid spray contact with the soybean leaves.

# Dosage and Timing Conservation Tillage

#### **Soybeans Early Preplant**

Galigan 2E is effective for preemergence and postemergence control of susceptible broadleaf weeds when surface applied at 1½ to 3 pints (0.38 to 0.75 lbs active) per broadcast acre to the stale seedbed prior to the planting of conservation tillage soybeans. Make applications approximately 14 days prior to planting. The higher rate of 2 to 3 pints (0.5 to 0.75 lbs active) will assist in early season annual grass control. However, Galigan 2E must not be a basic portion of the grass herbicide program. Use a planned program utilizing herbicides registered for early preplant, preemergence, or postemergence grass control in soybeans.

Use ridge or slot planters or other planting equipment that result in minimal soil disturbance. Do not disturb soil surfaces as the herbicidal effectiveness of Galigan 2E can be decreased. Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence. Timely cultivations will usually assist in weed control.

#### No-Till (Double-Crop) Soybeans Preemergence and Postemergence

Galigan 2E is effective for preemergence and postemergence control of susceptible broadleaf weeds when applied at 0.5 to 2 pints (0.125 to 0.5 lbs active) per broadcast acre in a minimum of 20 gallons of water per acre. For postemergence control of certain grassy and broadleaf weeds, a tank mix of either paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E can be used. For residual grass control in no-tillage soybeans, a tank mixture of Parallel, Lasso, or Oryzalin 4 AS with Galigan 2E or combinations of Galigan 2E plus paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used. Follow specific use directions and restrictions for these combination tank mixes.

#### **Weeds Controlled Preemergence**

Galigan 2E used alone at specified dosages provides preemergence control of the following broadleaf weeds:

Make application within one day after planting. Late applications may result in severe crop injury.

Groundcherry, Cutleaf\* Poinsettia, Wild Jimsonweed Shepherdspurse

Lambsquarters, Common Nightshade, American Black\* Nightshade, Black\* Pigweed, Redroot Sida, Prickly (Teaweed) Smartweed, Pennsylvania Sowthistle, Common\* Velvetleaf

#### Weeds Controlled Postemergence (Post-Directed Application)

When Galigan 2E is applied as a post-direct application at the specified weed stage and dosage in soybeans, the following weeds are controlled:

Cocklebur, Common Croton, Tropic Groundcherry, Cutleaf Groundcherry, Wright Jimsonweed

Lambsquarters, Common

Morningglory, Annual (Up To 6-Leaf)

Mustard, Wild

Nightshade, American Black

Nightshade, Black

Nightshade, Hairy Pigweed, Redroot Poinsettia, Wild\* Purslane, Common Sesbania, Hemp Shepherdspurse Sicklepod\*\*

Sida, Prickly (Teaweed)\* Smartweed, Pennsylvania

Velvetleaf

Use two pints of an 80% active nonionic surfactant, cleared for application to growing crops, per each 100 gallons of spray in all tank mixtures containing Galigan 2E when postemergence weed control is desired.

#### Tank Mixes With Galigan 2E

Galigan 2E when applied at 0.6 to 0.8 pint (0.16 to 0.2 lbs active) per acre as a tank mix combination with metribuzin (Metribuzin 75DF) at 0.33 lbs product (0.25 lbs active) per acre is effective for preemergence control of susceptible broadleaf weeds. Do not apply this tank mix to sandy soils or course soils (sandy loam or loamy sand) containing less than 2% organic matter. Do not use on soils with less than 1/2% organic matter or on alkaline soils with a pH above 7.4 as crop injury may occur. Make application within one day following planting. Later applications may result in severe crop injury. The Galigan 2E/metribuzine herbicide tank mix may be applied as a preemergence application following a preplant incorporated grass herbicide treatment or as a three-way tank mix in a preemergence application with either Parallel, Lasso, or Oryzalin 4 AS.

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

#### Dosage

Refer to the following tables for labeled use rates.

#### No-Till (Double-Crop) Soybeans

#### Preemergence

Soil Texture	Rate Of Product Per Broadcast Acre (Pints Per Acre)							
	Galigan 2E	Parallel*	Lasso 4E*	Oryzalin 4AS**	paraquat (Parazone )	Glyphosate (Glyphogan )		
Course	0.5 to 1.5	0.85-1.0	4.0 to 5.0	1.5	1.0 to 2.0	1.5 to 3.0		
Medium	0.5 to 2.0	1.0-1.33	5.0 to 6.0	2.0	1.0 to 2.0	1.5 to 3.0		
Fine	0.5 to 2.0	1.33-1.67	5.0 to 6.0	3.0	1.0 to 2.0	1.5 to 3.0		
Muck or Peat	***	***	***	***	***	***		

<sup>\*</sup>Use the higher rate of Parallel or Lasso on soils containing more than 3% organic matter.

<sup>\*</sup>Suppression of this weed occurs when Galigan 2E is applied at the reduced rate specified for the Galigan 2E /metribuzin tank mix combination.

<sup>\*</sup>Multiple applications may be required for acceptable control.

<sup>\*\*</sup>Post-direct applications of Galigan 2E will kill or suppress seedlings not exceeding the one true leaf stage.

<sup>\*\*</sup> Do not use herbicides containing oryzalin on soils containing more than 5% organic matter.

<sup>\*\*\*</sup>Do not use.

#### **Conventional Tilled Sovbeans**

#### Preemergence

Galigan 2E is effective for preemergence control of susceptible broadleaf weeds when applied at 1 to 11/2 pints (0.25 to 0.38 lbs active) per broadcast acre. Make application within one day of planting. Later applications may result in severe crop injury. The higher rate (0.38 lbs active) will assist in early season annual grass control. However, Galigan 2E must not be a basic portion of the grass herbicide program. Galigan 2E may be applied alone as a preemergence application following a preplant incorporated grass herbicide treatment or as a tank mix in a preemergence application with Parallel, Lasso, or Oryzalin 4AS.

## **Conventional Tilled Soybeans**

#### Preemergence

	Rate Of Product Per Broadcast Acre (Pints Per Acre)						
Soil Texture	Galigan 2E	Parallel	Lasso 4E*	Oryzalin 4AS**	Metribuzin 75DF (lbs per acre)		
Course	0.6 to 1.5	0.85-1.0	3.0 to 4.0	1.0 to 1.5	0.33		
Medium	0.6 to 1.5	1.0-1.33	4.0 to 6.0	1.5 to 2.0	0.33		
Fine	0.6 to 1.5	1.33-1.67	4.0 to 6.0	2.0 to 2.5	0.33		
Muck or Peat	***	***	***	***	***		

<sup>\*</sup>Use the higher rate of Parallel or Lasso on soils containing more than 3% organic matter.

#### **Weeds Controlled Preemergence**

When Galigan 2E is tank mixed with Parallel, Lasso, or Oryzalin 4AS and applied preemergence, in addition to the weeds controlled preemergence by Galigan 2E alone, control of the following weeds is also obtained:

Barnyardgrass Johnsongrass, Seedling Crabgrass, Large Panicum, Fall Ragweed, Common Foxtail, Giant Foxtail, Yellow Signalgrass, Broadleaf

#### **Weeds Controlled Postemergence**

When Galigan 2E is tank mixed with paraguat (Parazone 3SL), or glyphosate (Glyphogan) and applied postemergence, in addition to the weeds controlled postemergence by Galigan 2E alone, control of the following weeds is also obtained:

Bluegrass, Annual Foxtail, Yellow Crabgrass, Large Lambsquarters, Common Foxtail, Giant Ragweed, Common Foxtail. Green Sandbur, Field

#### **Timing and Method of Application**

As a preemergence treatment, apply in 20 to 60 gallons of water per acre. If glyphosate (Glyphogan) is included in the tank mix, apply in 20 to 40 gallons of water per acre. To insure complete coverage, increase spray volume as the density of emerged weeds, crop residue, or stubble increases. Use conventional spray equipment with flat fan or flood jet nozzles. Calibrate spray equipment carefully before each use.

#### Post-Directed Spray Galigan 2E Used Alone

#### Dosage

Apply Galigan 2E as a post-directed application at 1 pint (0.25 lbs active) per acre. Optimum control is achieved when Galigan 2E is applied to seedling weeds not exceeding 4 true leaves. See MIXING DIRECTIONS for surfactant specifications. Weeds must be in the seedling stage, young and actively growing. Do not count cotyledon leaves.

#### Tank Mixes With Galigan 2E

For improved broadleaf weed control, use a tank mixture of Galigan 2E plus Butoxone® or Butyrac® 200. Use 1 pint Galigan 2E (0.25 lbs active) with 1 pint of Butoxone (0.22 lbs active) or 0.7 to 0.9 pint of Butyrac 200 (0.175 to 0.22 lbs active) per broadcast acre. See MIXING DIRECTIONS for surfactant instructions. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

Soybeans plant height must be a minimum of 8 inches or greater. Use branch lifters or shields if excessive spray contact to the soybean plant cannot be avoided.

#### **Method of Application**

Accurate, uniform placement of Galigan 2E spray is essential for effective weed control and to minimize soybean injury. As a directed postemergence application, apply Galigan 2E at 20 to 25 psi using 20 to 40 gallons of spray on a broadcast acre basis. Do not exceed 25 psi. Direct spray towards the base of the soybean plant. Soybean foliage receiving accidental spray or drift may be injured. Weeds must be in the seedling stage, young and actively growing.

Galigan 2E can be applied using a post-direct spray rig with only 2 flat fan nozzles per row, 1 nozzle on each side of the row. Take additional care when adjusting the sprayer prior to application. For best coverage, use 4 flat fan nozzles per row, 2 nozzles on each side of the row. Point the 2 forward nozzles forward and downward and point the rear nozzles to the rear and downward. With either sprayer system, adjust the nozzles to cover the weed foliage with minimum contact to the soybean plant. Do not use hollow cone nozzles.

#### Tank Mixture of Galigan 2E with Command® Soybeans -Not For Use in California

Galigan 2E when applied preemergence at 0.6 to 0.8 pint (0.16 to 0.2 lbs active) per acre in a tank mix combination with Command at 0.75 to 1.25 lbs active is effective for the control of susceptible annual grass and broadleaf weeds in soybeans. Make application within one day following planting. Later applications may result in severe crop injury.

#### **Weeds Controlled Preemergence**

A tank mix of Galigan 2E with Command at specified dosages provides preemergence control of the following weeds:

<sup>\*\*</sup> Do not use herbicides containing oryzalin on soils containing more than 5% organic matter.

<sup>\*\*\*</sup>Do not use.

**Grass Weeds** 

Barnyardgrass Crabgrass

Large Smooth

Cupgrass, Southwest Cupgrass, Woolly

Foxtail Giant Green

Robust Purple Yellow

Goosegrass Johnsongrass (Seedling)

Panicum
Fall
Texas

Sandbur, Field Signalgrass, Broadleaf

Signalgrass, Broadlea (Brachiaria)

\*Suppression

# Jimsonweed Lambsquarters Mallow, Venice Nightshade, Black\* Pigweed, Redroot Purslane, Common

**Broadleaf Weeds** 

Croton, Tropic

Beggarweed, Florida

Groundcherry, Cutleaf\*

Pusley, Common Shepherdpurse Sida. Prickly

Smartweed, Pennsylvania Sowthistle. Common\*

Velvetleaf

#### Soybeans

#### **Specific Environmental Hazards**

This product is highly toxic to freshwater clams, oysters, aquatic invertebrates, and aquatic plants. Do not apply Galigan 2E when visible erosion to aquatic habitats and/or wetlands occurs. (See elsewhere on this label for further information on Environmental Hazards).

#### Soybeans - Not for use in California

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the e beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- Do not make more than two applications of Galigan 2E per growing season.
- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per acre during one growing season as a result of preemergence application in no-till (double-crop) or conventional till soybeans, or post-directed in conventional till soybeans. Do not apply more than 1 pint (0.25 lbs active) of Galigan 2E as a postemergence application. If early preplant application is made, do not apply more than 3 pints (0.75 lbs active) of Galigan 2E per acre during one growing season.
- Do not apply a post-directed application of Galigan 2E to soybeans after the initial appearance of blooms.
- Do not make more than one postemergence application to soybeans.

#### TARO HAWAII ONLY

#### **Product Information**

Galigan 2E is a selective herbicide for preemergence and post-directed application to dryland taro for the control of certain broadleaf weeds.

**NOTE:** Dryland taro is defined as a taro grown without irrigation or by using irrigation practices that do not result in runoff, irrigation return flow, or other loss of irrigation water from the production area. If irrigation is used, the water applied shall not exceed the field capacity of the soil.

Occasionally, after the use of Galigan 2E, a spotting, crinkling, or flecking may appear on the leaves of the taro. Leaves that receive direct or indirect (drift) spray contact will be injured.

Do not use Galigan 2E on taro plantings that are weak or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought, or excessive moisture.

#### Dosage

Apply Galigan 2E at a rate of 2 pints (0.5 lbs active) per broadcast acre as a single preemergence application within one week after transplanting (and prior to emergence) of the taro. A post-directed application of Galigan 2E can also be made at a rate of 1 pint (0.25 lbs active) per acre. Effective control of succulent weed seedlings in the 2- to 3-leaf stage can usually be obtained. Do not apply more than 1 pint (0.25 lbs active) of Galigan 2E per acre in a single post-direct application or more than 2 pints (0.5 lbs active) per broadcast acre per season as a result of multiple post-direct applications.

Dosages listed are for broadcast application. For banded application, reduce the amount of Galigan 2E used per acre according to the following formula:

 Band Width (in inches)
 X
 Rate per Broadcast Acre
 =
 Amount Needed per Acre for Banded Application

#### **Weeds Controlled**

Galigan 2E will provide preemergence and postemergence control of the following weeds when used at the specified dosages. Applications to weeds beyond the 3-leaf stage may result in partial control:

Amaranth, Spiny Spurge, Garden Purslane, Common

#### Timing and Method of Application

Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in a minimum of 15 gallons of water per acre.

When applied preemergence, use conventional ground spray equipment with flat fan nozzles at 20 to 40 psi. Accurately calibrate spray equipment prior to each use.

When applied as a post-directed spray, sprays must be directed to the base of the taro plant. Accurate, uniform placement of Galigan 2E is essential for effective weed control and to minimize crop injury. Taro foliage receiving accidental spray or drift will be injured. Galigan 2E must be applied using rigid precision ground sprayer equipment. As a directed postemergence application, apply Galigan 2E at 20 to 25 psi using 20 to 40 gallons of spray on a broadcast acre basis. Do not exceed 25 psi.

#### Taro - Hawaii Only

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 2 pints (0.5 lbs active) of Galigan 2E per broadcast acre as a single preemergence application.
- Do not apply more than 1 pint (0.25 lbs active) of Galigan 2E per broadcast acre in a single post-directed spray or more than 2 pints (0.5 lbs active) per broadcast acre per season as a result of multiple post-directed applications.
- Do not apply more than 4 pints (1.0 lbs active) of Galigan 2E per broadcast acre per season as a result of preemergence and post-directed applications.
- Do not apply Galigan 2E within 6 months before harvest of taro (corms, leaves).
- For use only to dryland taro grown in Hawaii. (Dryland taro is defined as taro grown without irrigation or by using irrigation practices that do not result in run-off, irrigation return flow, or other loss of irrigation water from the production area. If irrigation is used, the water applied shall not exceed the field capacity of the soil).

## TREE FRUITS, NUTS, AND VINES DORMANT APPLICATION

Almond, Apple, Apricot, Avocado, Beech Nut, Brazil Nut, Butternut, Cashew, Cherry, Chestnut, Chinquapin, Crabapple, Date, Feijoa, Fig, Filbert, Grapes, Hickory Nut, Kiwi, Loquat, Macadamia Nut, Mayhaw, Nectarine, Olive, Peach, Pear, Pecan, Persimmon, Pistachio, Plum, Pomegranate, Prune, Quince, Walnut

#### **Product Information**

Galigan 2E is effective as a preemergence and/or postemergence herbicide when used alone or in specified combinations for the control of certain annual broadleaf weeds in certain bearing and nonbearing tree fruit, nut, or vine plantings. The most effective postemergence weed control is achieved when Galigan 2E is applied to seedling weeds. For postemergence control of certain grassy and broadleaf weeds, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used.

For preemergence control of susceptible grassy and broadleaf weeds in certain tree fruit, nut, or vine plantings, a tank mixture of Galigan 2E with napropamide (Devrinol), diuron (Diuron 4L), simazine, norflurazon (Solicam), or oryzalin (Oryzalin 4AS) can be applied. Contact herbicides such as paraquat (Parazone 3SL) or glyphosate (Glyphogan) may also be added to the tank mixture. Check individual product labels to determine suitability and use rates for various crops.

#### Galigan 2E Used Alone Geographic Use Directions Arizona and California Dosage

Apply Galigan 2E for postemergence control at 2 to 6 pints (0.5 to 1.5 lbs active) per broadcast acre, or 2 to 8 pints (0.5 to 2.0 lbs active) per acre in a banded application. For preemergence control of susceptible weeds, use 5 to 6 pints (1.25 to 1.5 lbs active) per broadcast acre, or 5 to 8 pints (1.25 to 2.0 lbs active) per acre in a banded application.

#### **Weeds Controlled Preemergence**

Knotweed, Prostrate

Apply 5 to 6 pints (1.25 to 1.5 lbs active) of Galigan 2E per broadcast acre, or 5 to 8 pints (1.25 to 2.0 lbs active) per acre in a banded application.

Burclover Lambsquarters, Common Cheeseweed (Malva) Lettuce, Prickly Fiddleneck, Coast Pigweed, Redroot Filaree. Broadleaf Purslane, Common Filaree, Redstem Redmaids Filaree, Whitestem Rocket, London Groundsel, Common Shepherdspurse Henbit Sowthistle, Annual

#### Weeds Controlled Postemergence (weeds up to 4 inches high)

Apply 2 to 6 pints (0.5 to 1.5 lbs active) of Galigan 2E per broadcast acre or 2 to 8 pints (0.5 to 2.0 lbs active) per acre in a banded application. Applications to weeds beyond the 4-inch stage may result in partial control.

Cheeseweed, Malva

Fiddleneck, Coast

Filaree, Broadleaf\*

Filaree, Redstem\*

Filaree, Whitestem\*

Groundsel, Common

Henbit

Miner's Lettuce

Nettle, Burning

Pigweed, Redroot

Redmaids

Shepherdspurse

Sowthistle, Annual

\*Galigan 2E at the 6-pint rate (1.5 lbs active) will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

## Spray Volume for Dormant Applications on Tree Fruit, Nut and Vine Crops Application Methods and Recommended Cultural Practices- Post-emergence Weed Control:

Apply the specified rate in a broadcast spray volume of 40 or more gallons of water per acre (a minimum of 10 gallons if applying Galigan 2E in a tank mix with glyphosate or other contact herbicides which specify 10 gallons). As Galigan 2E has contact activity, optimum post-emergence control will be achieved with uniform coverage of weed foliage. The spray volume should be increased under heavy weed pressure or when crop residue is present. Post-emergence applications of Galigan 2E are most effective when made to weeds at the seedling stage. Partial control or suppression may result when applications are made later than the 4-inch or 4 leaf stage. For maximum control, make post-emergence applications to seedling grasses not exceeding the 1-leaf stage. The addition of a non-ionic surfactant applied at 0.25% v/v (2pints/100 gallons of spray solution) will enhance effectiveness in controlling emerged weeds.

CA only: minimum of 10 gallons if applying in a tank mix with glyphosate or other contact herbicides which specify 10 gallons

## All Other States (Except California and Arizona)

Dosage

Apply Galigan 2E for postemergence control at 2 to 6 pints (0.5 to 1.5 lbs active) per broadcast acre or 2 to 8 pints (0.5 to 2.0 lbs active) per acre in a banded application. For preemergence control of susceptible weeds, use 5 to 6 pints (1.25 to 1.5 lbs active) per broadcast acre or 5 to 8 pints (1.25 to 2.0 lbs active) per acre in a banded application.

#### **Weeds Controlled Preemergence**

Apply 5 to 6 pints (1.25 to 1.5 lbs active) of Galigan 2E per broadcast acre or 5 to 8 pints (1.25 to 2.0 lbs active) per acre in a banded application.

Camphorweed Cudweed. Narrowleaf Eveningprimrose, Cutleaf\* Groundcherry, Cutleaf

Jimsonweed Lambsquarters, Common

Nightshade, American Black Nightshade, Black

Pepperweed, Virginia

Pigweed, Redroot Poinsettia. Wild Sida, Prickly

Smartweed, Pennsylvania Sowthistle, Annual Spurge, Prostrate Spurge, Spotted Velvetleaf

\*Highest rate and/or multiple applications may be required for acceptable control. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre of Galigan 2E in one season.

#### **Weeds Controlled Postemergence**

Apply 2 to 6 pints (0.5 to 1.5 lbs active) of Galigan 2E per broadcast acre or 2 to 8 pints (0.5 to 2.0 lbs active) per acre in a banded application. Use the lower rate for the control of susceptible seedling weeds in the early postemergence stage up to the 4-leaf stage. Use the higher rate (1.5 lbs active) for weeds up to the 6-leaf stage. Applications to weeds beyond the 6-leaf stage may result in partial control.

Balsamapple Cocklebur, Common Cudweed, Narrowleaf\* Eveningprimrose, Cutleaf\*\* Groundcherry, Cutleaf Groundcherry, Wright Jimsonweed

Lambsquarters, Common Morningglory, Annual Nightshade, American Black

Nightshade, Black

Pepperweed, Virginia Pigweed, Redroot Poinsettia, Wild Purslane, Common Sesbania, Hemp Shepherdspurse Sida, Prickly (Teaweed) Smartweed, Pennsylvania Sowthistle, Annual

Velvetleaf

\*Maximum 0.5-Inch Diameter

#### **All States**

#### **Timing and Method of Application**

In Arizona and California, Galigan 2E can be applied during the period following completion of final harvest up to February 15 (February 1st in Coachella Valley, California). Applications made after the calendar dates above but prior to bud swell may result in significant crop injury and are the responsibility of the user. In California, Galigan 2E can be applied as an over-the-top or directed spray to dormant nonbearing grape plantings. Use a low-pressure sprayer.

In all states, do not apply Galigan 2E after buds start to swell until completion of final harvest. Do not apply when fruits or nuts are present. Galigan 2E can be applied upon completion of final harvest.

As a preemergence treatment, apply a minimum of 40 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Best preemergence results are achieved when spray is applied to a relatively weed-free established berm or soil surface. Direct Galigan 2E to the soil and the base of dormant trees or vines. Use a low-pressure sprayer equipped with a breakaway boom and flat fan nozzles. An off-center (OC) nozzle positioned at the end of the boom may be desired. Do not apply to grape plantings that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, injury from previously applied pesticides, or injury due to insects, nematodes, or diseases, as severe crop injury may result. See SPECIFIC USE RESTRICTIONS for Galigan 2E application on dormant tree or vine plantings.

Spray Volume

Weed Stage Gallons of Water per Acre

Preemergence 40 or more Postemergence (up to 4-inch or 4-leaf stage) 40 or more

Chemigation (All States): For dormant season application using sprinkler (low-volume (microsprinkler)), drip (trickle), and flood (basin) irrigation systems, apply specified dosage of Galigan 2E per acre as described in the applicable Dosage sections above. Follow all directions given in the section of the label entitled APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION when making applications using sprinkler irrigation systems. Do not allow treated irrigation water to contact the fruit or foliage.

#### Tank Mixes With Galigan 2E

IMPORTANT: Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

<sup>\*\*</sup>Highest rate and/or multiple applications may be required for acceptable control. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre of Galigan 2E in one season.

#### Dosage

For preemergence control of susceptible grassy and broadleaf weeds in certain bearing and nonbearing tree fruit, nut, or vine plantings, a tank mixture of Galigan 2E with napropamide (Devrinol), diuron (Diuron 4L), simazine, norflurazon (Solicam), or oryzalin (Oryzalin 4AS) can be applied. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

For postemergence control of susceptible grassy and broadleaf weeds in certain tree fruit, nut, or vine plantings, a tank mixture of paraquat (Parazone 3SL) or glyphosate (Glyphogan) with Galigan 2E or combinations of Galigan 2E plus napropamide (Devrinol), diuron (Diuron 4L), simazine, norflurazon (Solicam), or oryzalin (Oryzalin 4AS) with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

#### **Weeds Controlled**

In addition to the weeds controlled by Galigan 2E used alone, control of susceptible weeds listed on the respective labels for the following products is also obtained.

simazine\*

diuron (Diuron 4L) norflurazon (Solicam) glyphosate (Glyphogan) oryzalin (Oryzalin 4AS) napropamide (Devrinol) paraquat (Parazone 3SL)

\*In addition, simazine provides preemergence control of horseweed (marestail).

#### Tree Fruits, Nuts, and Vines **Dormant Application Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply Galigan 2E during the period between bud swell and completion of final harvest or when fruit or nuts are present. Galigan 2E can be applied upon completion of final harvest.
- IN ARIZONA AND CALIFORNIA, Galigan 2E can be applied during the period following completion of final harvest up to February 15 (February 1st in the Coachella Valley, California). Applications made after the calendar dates above but prior to bud swell may result in significant crop injury and are the responsibility of the user.
- Do not apply more than 6 pints (1.5 lbs active) per broadcast acre of Galigan 2E in one season.
- For banded applications, up to 8 pints (2.0 lbs active) per acre of Galigan 2E per use season may be applied.
- Do not apply to grapes or kiwi established less than 3 years unless vines are on a trellis wire a minimum of 3 feet above the soil surface.
- Do not apply to grapes or kiwi that are not staked or trellised unless vines are free-standing.
- Apply Galigan 2E or any of the combinations specified on this label only to healthy growing trees or vines.
- Direct spray toward the base of trees or vines unless specified to allow over-the-top application. In California, Galigan 2E may be applied as an over-the-top application to dormant, nonbearing grape plantings. Otherwise, avoid direct plant contact. Use a low-pressure
- Use of any treated plants for feed or forage or grazing any treated areas is prohibited.
- Application to trees or vines after buds start to swell or when foliage or fruit is present is prohibited.

#### **GRAPES-NONBEARING WASHINGTON ONLY**

#### **Dormant-Nonbearing Grapes in Washington Product Information**

Galigan 2E is effective as a preemergence and/or postemergence herbicide for the control of certain annual grasses and broadleaf weeds in dormant nonbearing grape plantings. The most effective postemergence weed control is achieved when Galigan 2E is applied to seedling weeds.

#### **Crop Tolerance**

When Galigan 2E is applied according to labeled directions, crop response (leaf cupping, crinkling and necrosis) and stunting can be observed on new emerging growth. Vines typically outgrow this condition and develop normally. Some varieties or root stocks of grapes may be more susceptible to Galigan 2E. Ensure that the particular grape variety being grown is tolerant to Galigan 2E.

Applications of Galigan 2E must not be made after budswell. In the fall, Galigan 2E can be applied after the grape plantings are dormant or frost has occurred. Applications prior to dormancy or frost occurring can result in significant crop injury and are the responsibility of the user. Apply Galigan 2E to dormant vines, prior to budswell. The closer the grapes are to bud-break at application, the greater the crop response can be to Galigan 2E. Do not apply Galigan 2E after the buds start to swell.

#### Method of Application

Apply Galigan 2E in a minimum of 40 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Best preemergence results are achieved when spray is applied to a relatively weed-free established berm or soil surface. Apply Galigan 2E as an over-the-top or directed spray to dormant nonbearing grape plantings. Use a low-pressure sprayer.

#### Dosage

Apply Galigan 2E for postemergence control at 2 to 8 pints (0.5 to 2.0 lbs active) per broadcast acre. For preemergence control of susceptible weeds, use 5 to 8 pints (1.25 to 2.0 lbs active) per broadcast acre.

#### **Weeds Controlled Preemergence**

Apply 5 to 8 pints (1.25 to 2.0 lbs active) of Galigan 2E per broadcast acre.

Burclover Cheeseweed (Malva) Fiddleneck, Coast Filaree, Broadleaf Filaree, Redstem Flixweed

Groundsel, Common

Henbit

Knotweed, Prostrate

Lambsquarters, Common Lettuce, Prickly

Pigweed, Redroot Purslane. Common Redmaids Rocket, London Shepherdspurse Sowthistle, Annual Spurge, Prostrate

Velvetleaf

#### Weeds Controlled Postemergence

Apply 2 to 8 pints (0.5 to 2.0 lbs active) of Galigan 2E per broadcast acre to weeds up to 4 inches high. Applications to weeds beyond this 4-inch stage may result in partial control.

Cheeseweed (Malva) Miner's Lettuce Cocklebur, Common Mustard. Wild Fiddleneck, Coast Nettle, Burning Filaree. Redstem\* Nightshade, Black Flixweed Nightshade, Hairy Groundsel. Common Piaweed. Redroot Henbit Shepherdspurse Ladysthumb Sowthistle, Annual

\*Galigan 2E at the 8-pint rate (2.0 lbs active) will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch state may result in partial control. When postemergence weed control is desired, add an 80% active nonionic surfactant cleared for application to growing crops at the rate of 2 pints per each 100 gallons of spray.

Velvetleaf

#### Nonbearing Grapes - Washington Only Dormant Only

Lambsquarters, Common

#### **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- DO NOT APPLY TO NONDORMANT GRAPES. Read and observe all label directions before using.
- Do not apply more than 8 pints (2.0 lbs active) per broadcast acre of Galigan 2E in one season.
- This product is highly toxic to aquatic invertebrates, aquatic plants, wildlife, and fish. Galigan 2E must not be used under this label where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program web site at http://agr.wa.gov/PestFert/EnvResources/EndangSpecies.htm, or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered. Consult other sections of this label for additional restrictions and precautions to protect aquatic organisms.
- Tank mixtures of Galigan 2E with other pesticides may result in enhanced crop response/injury and are the responsibility of the user.
- Do not apply to grape plantings that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind
  injury, hail, injury from previously applied pesticides, or injury due to insects, nematodes, or diseased, as severe crop injury may result.
- Chemigation: Do not apply this product through any type of irrigation system.
- A 25 ft. vegetative buffer strip must be maintained between all areas treated with this product and lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

## APRICOTS, NECTARINES, OLIVES, PEACHES, PLUMS AND PRUNES CALIFORNIA ONLY

## Nondormant Application to Apricots, Nectarines, Olives, Peaches, Plums and Prunes in California Product Information

Galigan 2E provides effective postemergence control of cheeseweed (Malva), Fleabane, and Marestail (Horseweed) young broadleaf weed seedlings in non-dormant apricots, nectarines, olives, peaches, plums and prunes. For enhanced postemergence activity against these target weeds as well as other weed species, tank mix Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) to increase the spectrum of weed control by either of these tank mix partners. Compatibility of each mixture must be established before tank mixing and application must be applied by ground equipment. Follow all precautions and restrictions on the labeling of the products to be tank mixed.

#### Dosage

Use Galigan 2E for postemergence suppression of the target weeds at 0.5 to 1 pint (0.125 to 0.25 lbs active) per broadcast acre when applied to susceptible weed seedlings less than 4 inches in height. Repeat applications may be required. Do not exceed 6 pints (1.5 lbs active) of Galigan 2E during the non-dormant stage of apricots, nectarines, olives, peaches, plums and prunes. For a broader spectrum of grass weeds and broadleaf weeds control in the tree row middles, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used. Read and follow the labeling of either the paraquat (Parazone 3SL) or glyphosate (Glyphogan) pesticide product which is to be tank mixed with Galigan 2E.

#### **Method of Application**

**Ground Application:** Apply a minimum spray volume of 10 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Position an off-center nozzle at the end of the boom. Calibrate spray equipment carefully before each use.

Chemigation Application: Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For additional information on these systems, see the APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION section of this label.

**Cultural Considerations for All Applications**: In order to provide maximum effectiveness of preemergence activity of Galigan 2E, the berm or soil surface must be level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of Galigan 2E. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment. For best results, apply to established berms or soil surfaces that are left undisturbed during the time period for which weed control is desired.

# Apricots, Nectarines, Olives, Peaches, Plums and Prunes in California Nondormant Application

### Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturer labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- When applied as a non-dormant treatment, Galigan 2E can only be applied to apricots, peaches, nectarines, plums and prunes after May1. Galigan 2E can only be applied as a non-dormant treatment to olives after bloom.
- Do not apply Galigan 2E within 14 days of harvest of fruit.

- Do not apply more than 6 pints (1.5 lbs ai) per broadcast acre of Galigan 2E during the non-dormant season.
- Apply Galigan 2E only to healthy trees.
- Direct spray toward the base of the tree. Avoid direct herbicide contact with foliage and fruit.

## GRAPES GROWN FOR WINE OR RAISINS CALIFORNIA ONLY

## Nondormant Application

#### **Product Information**

Galigan 2E is a selective herbicide for the control/suppression of susceptible broad leaf weed species in nondormant grapes (raisin and wine grapes only) when applied either as a directed ground spray application or for supplemental preemergence weed control through low-volume sprinkler (microsprinkler) or drip (trickle) irrigation systems. (Galigan 2E can be applied to all grapes (raisin, table, wine) when applied as a dormant application as specified above.) The total amount of Galigan 2E applied during one season (from completion of final harvest through dormancy to nondormant use covered by this section) cannot exceed a total of 6 pints (1.5 lbs ai) per acre as a result of multiple applications in any given area (broadcast, banded, or within the wetted area of the low-volume sprinkler or drip irrigation systems).

#### **Crop Tolerance Information**

The use of Galigan 2E may in some instances result in varying degrees of injury to nondormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift, soil contact) exposure to Galigan 2E. This injury may result in leaf necrosis, reddening of the foliage, leaf cupping, or crinkling of the crop. The grape plant continues to grow normally. Immature, expanding leaves at the time of contact with Galigan 2E are the most susceptible to foliage injury. Grapes may exhibit some small blemishes (spots or flicks) to the fruit.

#### **Dosage and Application Timing**

Galigan 2E can be applied as a nondormant application. Applications can be made to nondormant grapes during the period between the completion of bloom up through 14 days prior to harvest.

Apply Galigan 2E at rates of 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre postemergence or 2 pints (0.5 lbs active) per broadcast acre preemergence. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre per season as a result of multiple applications made during the dormant and nondormant season (up to 14 days prior to harvest).

#### Weeds Controlled/Suppressed Postemergence (weeds up to 4 inches high)

For postemergence control/suppression, apply 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre to susceptible weed seedlings up to 4 inches in height. Repeat applications may be required. Applications to weeds beyond this 4-inch stage or at reduced use rates will result in reduced herbicidal activity. For enhanced postemergence activity on certain grassy and broadleaf weeds, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used when applied with ground application equipment.

Cheeseweed (Malva)
Fiddleneck, Coast
Groundsel, Common
Henbit
Morningglory Species, Annual
Mustard, Black
Ruthle, Burning
Nightshade, Black
Pigweed, Redroot
Purslane, Common
Redmaids
Rocket, London
Sowthistle, Annual

Where postemergence weed activity is desired, add 1 quart of a 80% active nonionic surfactant cleared for application to growing crops per each 100 gallons of spray.

#### Tank Mixtures with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

For enhanced postemergence activity on a broader spectrum of grassy and broadleaf weeds in the berm or row middles, a tank mixture of Galigan 2E with either glyphosate (Glyphogan) or paraquat (Parazone 3SL) can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective labels.

#### Weeds Controlled/Suppressed Preemergence

Apply 2 pints (0.5 lbs active) of Galigan 2E per broadcast acre. Applications at reduced rates will result in reduced herbicidal activity.

Burclover Nettle, Burning Cheeseweed (Malva) Nightshade, Black Fiddleneck, Coast Pigweed, Redroot Groundsel, Common Purslane, Common Henbit Redmaids Knotweed. Prostrate Rocket, London Lambsquarters, Common Sherpherdspurse Minerslettuce Sowthistle, Annual

Mustard, Black

#### **Method of Application**

**Ground Application:** Mix Galigan 2E thoroughly with clean water at specified concentrations and applied in a minimum of 20 gallons of water per acre (minimum 10 gallons for Galigan/glyphosate tank mix). Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Best preemergence results are achieved when spray is applied to a relatively weed-free established berm or soil surface.

Direct Galigan 2E to the soil and the base of vines. Use a low-pressure sprayer equipped with a breakaway boom and flat fan nozzles. An off-center (OC) nozzle positioned at the end of the boom may be desired. Calibrate spray equipment carefully before each use. See **Specific Use Restrictions** for Galigan 2E application on nondormant vine plantings.

Thoroughly flush the spray equipment (tank, hose, pump, boom) with water before and after each use. Residual Galigan 2E remaining in spray equipment may damage other crops.

AVOID DRIFT TO ALL OTHER CROPS AND NONTARGET AREAS. DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT. GALIGAN 2E IS PHYTOTOXIC TO PLANT FOLIAGE.

Chemigation Application: Galigan 2E may be applied using sprinkler (low-volume (microsprinkler)) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the vine canopy. The application of Galigan 2E is intended to supplement the preemergence weed control requirements of a broadcast (or directed) weed control program where weed emergence is anticipated within the wetted area of a low-volume sprinkler (microsprinkler) or drip (trickle) irrigation system. Make applications prior to weed emergence since postemergence activity will be inconsistent due to partial coverage. Apply specified dosage of Galigan 2E per acre as described in **Dosage and Application Timing** section above for nondormant grapes. Meter Galigan 2E at a continuous uniform rate during the middle 1/3 of the irrigation period to allow for uniform distribution to the soil surface. For best results, uniformly position Galigan 2E across the wetted area to help reduce the "ring effect" of weed escapes as other products begin to break down around the emitter. Continue irrigation during the final 1/3 of the irrigation period to insure proper flushing of the irrigation system. Follow all directions given in the section entitled **APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION** when making applications using sprinkler irrigation systems. Do not allow treated irrigation water to contact the fruit or foliage.

#### Grapes Grown For Wine or Raisins Only Nondormant Application-California Only Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- The total amount of Galigan 2E applied during one season (from completion of final harvest through dormancy to nondormant use covered by this section) cannot exceed 6 pints (1.5 lbs active) per acre as a result of multiple applications in any given area (broadcast, banded, or within the wetted area of the low-volume sprinkler or drip irrigation systems).
- Do not apply within 14 days of harvest.
- Do not initiate Galigan 2E applications in nondormant grapes until the completion of bloom.
- Do not apply to grapes established less than 3 years unless vines are either on a trellis wire a minimum of 3 feet above the soil surface or protected by grow tubes.
- Apply Galigan 2E only by ground application equipment or through low-volume sprinkler (microsprinkler) or drip (trickle) irrigation systems as specified above.
- Apply Galigan 2E as a nondormant application to wine grapes or raisin grapes only.

## SUCKER CONTROL IN GRAPES FOR WINE AND PROCESSING WASHINGTON AND OREGON ONLY

## Non-dormant Application Product Information

Galigan 2E may be used to assist with sucker control in grapes (wine and processed grapes only) when applied as a directed ground spray application to suckers growing from the base of the plant. The use of Galigan 2E will typically reduce (but not eliminate) the need for sucker removal by hand.

#### **Crop Tolerance**

The use of Galigan 2E may in some instances result in varying degrees of injury to nondormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift, soil contact) exposure to Galigan 2E. This injury may result in leaf necrosis, reddening of the foliage, leaf cupping, or crinkling. Immature, expanding leaves at the time of contact with Galigan 2E are the most susceptible to foliage injury. Grapes may exhibit some small blemishes (spots or flecks) to the fruit.

#### **Rate and Application Timing**

Apply Galigan 2E at a rate of 1 to 2 pints (0.25 to 0.5 lbs active ingredient) per acre in a spray volume of 50 gallons (or more) per broadcast acre to new emerging sucker growth, up to 12 inches in length. The highest rate and/or a second application may be required to achieve an acceptable level of control/suppression of grape suckers. Do not apply more than 6 pints (1.5 lbs active) per broadcast acre, as a result of multiple applications made during a single season (dormant and nondormant). The use of Galigan 2E will typically reduce (but not eliminate) the need for sucker removal by hand. Applications can be made to nondormant grapes up to three weeks after bloom. Do not use within 60 days of harvest.

Add 1 quart of a 80% active nonionic surfactant cleared for application to growing crops per each 100 gallons of spray.

Rates indicated above are for broadcast application. For banded applications, reduce the amount of Galigan 2E used per acre according to the following formula:

<u>Band Width (inches)</u>
Row Width (inches)

X Rate Per Broadcast Acre = Amount Needed per Acre

#### **Method of Application**

Apply Galigan 2E in a three-foot band directed towards the base of the grapevine. Applications are to be directed towards the lower portion of the grapevine to minimize leaf injury from spray contact. Avoid spray contact on flowers, grape clusters, or fruit. Mounted nozzles are used to deliver the spray solution. Thorough spray coverage of sucker growth is essential to maximize the activity of Galigan 2E. Calibrate spray equipment carefully before each use.

AVOID DRIFT TO ALL OTHER CROPS AND NONTARGET AREAS. DO NOT APPLY WHEN WEATHER CONDITIONS FAVOR DRIFT. GALIGAN 2E IS PHYTOTOXIC TO PLANT FOLIAGE.

#### Tank Mixtures with Galigan 2E

IMPORTANT: Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive requirements must apply. For enhanced postemergence sucker activity, a tank mixture of Galigan 2E with either glufosinate (Rely) or paraquat (Parazone 3SL) can be used. Apply at the specified rates and growth stages in a manner described on the respective labels.

#### Grapes -Washington and Oregon Only Wine and Processing Only Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- The total amount of Galigan 2E applied during one crop year (dormant and nondormant) cannot exceed 6 pints (1.5 lbs active ingredient) per acre as a result of multiple applications in any given area (broadcast or banded).
- Apply Galigan 2E only by ground application equipment.

- Apply Galigan 2E as a nondormant application for sucker control to wine grapes or processed grapes only.
- Do not apply when weather conditions favor drift. Avoid drift to all nontarget areas. Galigan 2E is phytotoxic to plant foliage.
- Do not apply Galigan within 60 days of harvest.
- Do not treat ditch banks or waterways with Galigan 2E.

## PISTACHIOS, WALNUTS, ALMONDS CALIFORNIA AND ARIZONA ONLY

#### Nondormant Application Product Information

Galigan 2E provides effective vegetation management when applied to young broadleaf weed seedlings. For enhanced postemergence activity on certain grassy and broadleaf weeds, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used when applied with ground application equipment.

#### Dosage

Use Galigan 2E for postemergence suppression at 1 to 2 pints (0.25 to 0.5 lbs active) per broadcast acre when applied to susceptible weed seedling less than 4 inches in height. Repeat applications may be required.

For cleanup sprays and preharvest applications for contact (postemergence) control, apply Galigan 2E at 2 to 6 pints (0.5 to 1.5 lbs active) per broadcast acre to susceptible weed seedlings not exceeding the 4-inch stage. Applications to weed seedlings beyond the 4-inch stage may result in partial control.

For residual (preemergence) control of susceptible weeds, use 5 to 6 pints (1.25 to 1.5 lbs active) per broadcast acre.

#### Weeds Suppressed and/or Controlled

Cheeseweed (Malva)
Fiddleneck, Coast
Filaree, Broadleaf
Filaree, Redstem
Filaree, Whitestem
Groundsel, Common
Henbit
Miner's Lettuce

Morningglory Species, Annual Mustard, Black Nettle, Burning Pigweed, Redroot Purslane, Common Redmaids Rocket, London Sowthistle, Annual

#### Tank Mixtures with Galigan 2E

**IMPORTANT:** Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

#### Dosage

For enhanced postemergence activity on a broader spectrum of grass weeds and broadleaf weeds in the tree row middles, a tank mixture of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) can be used. Apply at the specified rates and growth stages to susceptible weed species in a manner described on the respective label.

#### Weeds Suppressed and/or Controlled

Barnyardgrass Horseweed (Marestail)
Bluegrass, Annual Rocket, London
Chickweed, Common Ryegrass, Italian

#### Method of Application

**Ground Application:** Apply a minimum spray volume of 20 gallons of water per acre (minimum 10 gallons for Galigan 2E /glyphosate (Glyphogan) tank mix). Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Position an off-center nozzle at the end of the boom. Calibrate spray equipment carefully before each use.

Chemigation Application: Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For flood (basin) irrigation systems, continuously meter Galigan 2E into the water during the entire irrigation period. Agitate in the pesticide supply tank. Best weed control results are obtained when a uniform distribution and flow of irrigation water is maintained over level land. Galigan 2E may be applied through low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. The application of Galigan 2E is intended to supplement the preemergence weed control requirements of a broadcast (or directed) weed control program, where weed emergence is anticipated within the wetted area of a low-volume sprinkler (microsprinkler) or drip (trickle) irrigation system. Make applications prior to weed emergence since postemergence activity will be inconsistent due to partial coverage. Meter Galigan 2E at a continuous uniform rate during the middle one-third of the irrigation period to allow for uniform distribution to the soil surface. For best results, uniformly position Galigan 2E across the wetted area to help reduce the "ring effect" of weed escapes, as other products begin to break down around the emitter. Continue irrigation during the final one-third of the irrigation period to insure proper flushing of the irrigation system. Irrigation water treated with Galigan 2E must be contained on the treated area until the water is absorbed by the soil. Do not apply when wind speed favors drift beyond the area intended for treatment.

**Cultural Considerations for All Applications:** In order to provide maximum effectiveness of preemergence activity of Galigan 2E, the berm or soil surface must be level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Leaves and trash may be removed by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution of disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of Galigan 2E. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment. The best results are from applications to established berms or soil surfaces that are left undisturbed during the time period for which weed control is desired.

#### Pistachios, Walnuts, Almonds in Arizona and California Nondormant Application Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

WHEN APPLIED AS A NON-DORMANT TREATMENT, GALIGAN 2E CAN ONLY BE APPLIED TO PISTACHIO PLANTINGS

#### BETWEEN MAY 1 AND 7 DAYS PRIOR TO HARVEST.

- WHEN APPLIED AS A NON-DORMANT TREATEMENT, GALIGAN 2E CAN ONLY BE APPLIED TO ALMOND PLANTINGS BETWEEN APRIL 1 AND SEPTEMBER 30 AND TO WALNUT PLANTINGS BETWEEN MAY 1 AND SEPTEMBER 30.
- Do not apply Galigan 2E within 7 days of harvest of pistachio trees.
- Do not apply Galigan 2E within 30 days of harvest of almond trees.
- Do not apply Galigan 2E within 7 days of harvest of walnut trees.
- Do not apply more than 6 pints (1.5 lbs active) per broadcast acre of Galigan 2E during the non-dormant season.
- Apply Galigan 2E only to healthy growing trees.
- Direct spray toward the base of tree. Avoid direct herbicide contact with foliage or nuts.

## ALMONDS - REDUCED PREHARVEST INTERVAL CALIFORNIA ONLY

## Nondormant Application with a 30 to 15 Day PHI Product Information

Galigan 2E provides effective suppression of cheeseweed (Malva), fleabane and marestail (horseweed) as well as other weeds listed below in non-dormant almonds when applied to young broadleaf weed seedlings. For enhanced postemergence activity against these target weeds as well as other weed species, tank mixtures of Galigan 2E with either paraquat (Parazone 3SL) or glyphosate (Glyphogan) may be used to increase the spectrum of weed control by either of these tank mix partners. Compatibility of each mixture must be established before tank mixing and application must be applied by ground equipment. Follow all precautions and restrictions on the labeling of the products to be tank mixed.

#### Dosage

Use Galigan 2E for postemergence suppression of the target weeds at 0.5 pint (0.125 lbs active) per broadcast acre up to 15 days prior to harvest when applied to susceptible weed seedlings less than 4 inches in height.

Do not apply more than 6 pints (1.5 lbs active) of Galigan 2E per broadcast acre in one season. For summer broadleaf weed control, apply no more than 5 pints (1.25 lbs active) of Galigan 2E per broadcast acre prior to the February 15<sup>th</sup> cutoff. Then for summer use, apply no more than 0.5 pints (0.125 lbs active) per broadcast acre up to 30 days before harvest, and no more than 0.5 pints (0.125 lbs active) per broadcast acre between 30 and 15 days before harvest. For a broader spectrum of grass weeds and broadleaf weeds control in the tree row middles, a tank mixture of Galigan 2E with either paraquat or glyphosate can be used. Read and follow the labeling of either the paraquat (Parazone 3SL) or glyphosate (Glyphogan) pesticide product which is to be tank mixed with Galigan 2E.

#### Weeds Suppressed and/or Controlled

Cheeseweed (Malva)
Fiddleneck, Coast
Filaree, Broadleaf
Filaree, Redstem
Filaree, Whitestem
Groundsel, Common

Henbit Miner's Lettuce Morningglory Species, Annual

Mustard, Black Nettle, Burning Pigweed, Redroot Purslane, Common Redmaids Rocket, London Sowthistle, Annual

#### Additional Weeds Controlled in Tank Mix with Glyphosate or Paraquat

Barnyardgrass Bluegrass, Annual Chickweed, Common Fleabane Horseweed (Marestail) Rocket, London Ryegrass, Italian

#### Method of Application

**Ground Application:** Apply a minimum spray volume of 10 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Position an off-center nozzle at the end of the boom. Spray equipment calibrated carefully before each use.

Chemigation Application: Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For additional information on these systems, see the APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION section of this label.

**Cultural Considerations For All Applications**: In order to provide maximum effectiveness of preemergence activity of Galigan 2E, the berm or soil surface must be level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of Galigan 2E. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment.

#### Almonds Reduced Preharvest Interval in California Nondormant Application with a 30 to 15 Day PHI Specific Use Restrictions

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Read and observe all label directions before using. When tank mixing, always read all individual manufacturer labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.
- When applied as a non-dormant treatment, Galigan 2E can only be applied to almonds between April 1 and September 30.
- Do not apply more than 6 pints (1.5 lbs ai) per broadcast acre of Galigan 2E during the non-dormant season.
- In order to use 0.5 pints (0.125 lbs ai) Galigan 2E at 15 days before harvest, no more than 5 pints (1.25 lbs ai) should have been applied within 60 days of harvest and no more than 0.5 pints (0.125 lbs ai) should have been applied within 30 days of harvest.
- Apply Galigan only to healthy trees.
- Direct spray toward the base of the tree. Avoid direct herbicide contact with foliage and fruit.

WINDBREAKS AND SHELTERBELTS
MINNESOTA, NORTH DAKOTA, SOUTH DAKOTA, WYOMING ONLY

Galigan 2E is effective as a preemergence and/or postemergence herbicide for the control of certain annual broadleaf weeds in windbreaks and shelterbelts. Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Do not disturb treated soil surfaces as the herbicidal effectiveness of Galigan 2E may be decreased. Seedling weeds are controlled during emergence as they come in contact with the soil-applied herbicide. The most effective postemergence weed control is achieved when Galigan 2E is applied with thorough coverage of weeds in the seedling stage.

Occasionally after the use of Galigan 2E, a spotting, crinkling, or flecking may appear on leaves of deciduous species. Leaves that receive direct or indirect (drift) spray contact will be injured. Deciduous species typically outgrow this condition rapidly and develop normally.

IMPORTANT: Some varieties or cultivars and deciduous species listed may be susceptible to Galigan 2E. Care must be taken to ensure that the particular variety to be sprayed with Galigan 2E is tolerant. Test unfamiliar species in limited areas prior to application for preemergence and postemergence weed control.

#### **Weeds Controlled**

When Galigan 2E is applied preemergence or postemergence (up to 4-leaf stage) at specified dosages, the following broadleaf weeds are controlled

Buckwheat, Wild Mustard, Wild Burclover Nettle, Burning Carpetweed Nightshade, Black Dock, Curly Nightshade, Hairy Groundcherry, Cutleaf Oats, Wild Groundcherry, Wright Orach, Red

Groundsel, Common Pepperweed, Yellowflower Pigweed, Prostrate Henbit Pigweed, Redroot Jimsonweed Knotweed, Prostrate Purslane, Common Kochia Rocket, London Ladysthumb Shepherdspurse\* Lambsquarters, Common Smartweed, Pennsylvania Sowthistle, Annual Lettuce, Prickly

Mallow, Little **Tansymustard** Thistle, Russian (Seedling) Mayweed

Mustard, Blue Velvetleaf Mustard, Tumble

#### **Grasses Controlled**

Austrian

When Galigan 2E is applied preemergence or postemergence (up to 2-leaf stage) at specified dosages, the following annual grasses are controlled/suppressed.

Barnyardgrass Foxtail, Giant Bluegrass Annual Goosegrass Crabgrass, Large Witchgrass

Galigan 2E is most effective when applied preemergence to annual grasses. Make postemergence applications to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% (2 pints per 100 gallons of spray solution) of an 80% active nonionic surfactant, cleared for application on growing crops, enhances the Galigan 2E activity on emerged weeds. When determining an appropriate use rate where a range of rates is provided, use higher rates where heavy weed pressure is anticipated, or where medium and fine soil textures exist and high organic matter soils are present.

Galigan 2E may be applied to conifer and deciduous species including the following:

#### **CONIFER SPECIES**

Scientific Name **Common Name** Arborvitae Thuja occidentalis Thuja orientalis **Douglas Fir** Pseudotsuga menziesii Fir Fraser Abies fraseri

Grand Abies grandis Noble Abies procera Hemlock

Eastern Hemlock Tsuga canadensis Western Hemlock Tsuga heterophylla Juniperus chinensis Juniper Juniperus horizontalis Juniperus procumbens

Juniperus sabina Juniperus scopulorum Pine

Eastern White Pinus strobus Himalayan Pinus wallichiana Jack Pinus banksiana Loblolly Pinus taeda Lodgepole Pinus contorta Longleaf Pinus palustris Pinus radiata

Monterey Mugho Pinus mugo

Pinus nigra

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

Ponderosa Scotch Shortleaf Slash Virginia Spruce Blue **Dwarf Alberta** Norway Sitka

Pinus ponderosa Pinus sylvestris Pinus echinata Pinus elliottii Pinus virginiana

Picea pungens Picea glauca conica Picea abies Picea sitchensis Juniperous virginiana Taxus, spp.

#### **DECIDUOUS SPECIES**

**Common Name** Ash Crabapple

**Red Cedar** 

Yew

Eucalyptus

Lilac Maple, Black Oak. Northern Red Olive, Russian Poplar (Cottonwood) Sweetgum Svcamore

Walnut, Black

**Scientific Name** Fraxinus spp. Malus spp.

Eucalyptus viminalis, E. pulverulenta,

Syringa vulgaris Acer nigrum Quercus rubra Elaeagnus angustifolia Populus spp. Liquidamber styraciflua Platanus occidentalis Juglans nigra

E. camaldulensis

#### Dosage

Apply 4 to 6 pints (1.0 to 1.5 lbs active) of Galigan 2E per broadcast acre for preemergence and postemergence weed control. The addition of 0.25% v/v (2 pints per 100 gallons of spray solution) of an 80% active nonionic surfactant cleared for application to growing crops enhances the Galigan 2E activity on emerged weeds.

For banded application, reduce the amount of Galigan 2E to be used per acre according to the following formula.

Band Width (in inches) Rate per Amount Needed per Acre Χ Row Width (in inches) Broadcast Acre for Banded Application

#### Method of Application

Conifers: Galigan 2E can be applied pretransplant, post-directed, or postemergence (over-the-top) to conifers. Apply postemergence or postdirected applications prior to budbreak or after the foliage has had an opportunity to harden off.

Deciduous Species: Galigan 2E has exhibited selectivity to many deciduous species when applied pretransplant or as a post-directed spray prior to budbreak. Take special care to direct the spray toward the base of the plant. Applications made after budbreak can result in injury to the deciduous species. (Note: If a nondormant application is required, do not apply during periods of new foliage growth. Make applications after foliage has fully expanded and hardened off. Direct spray toward the base of the trees. Avoid direct or indirect spray contact with the foliage of the deciduous species.)

Mix Galigan 2E thoroughly with clean water at the specified concentration and applied at 20 to 40 psi in a minimum of 20 gallons of water per acre as a broadcast, banded, or post-directed spray. Thorough spray coverage is essential to maximize the postemergence activity of Galigan 2E. Calibrate spray equipment carefully before each use.

Pretransplant applications must be made after completion of soil preparation but prior to transplanting. Complete transplanting with minimal soil disturbance. Leave treated soil surfaces undisturbed after transplanting to obtain the greatest benefit of Galigan 2E on susceptible annual broadleaf weeds during the time period for which weed control is desired. However, timely cultivations after weed emergence will assist in weed control.

#### Windbreaks and Shelterbelts in Minnesota, North Dakota, South Dakota and Wyoming **Specific Use Restrictions**

In addition to the following, also observe PRODUCT USE RESTRICTIONS listed at the beginning of this label.

- Do not apply more than 6 pints (1.5 lbs active) of Galigan 2E per treated acre in a single application or more than 18 pints (4.5 lbs active) per acre per year.
- Always apply Galigan 2E to healthy deciduous and /or conifer species.
- Do not apply Galigan 2E to conifers or deciduous species that have been weakened or under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury, as severe injury may result.

#### FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY

In addition to the directions for use by aerial application, the following guidelines are required between the dates of February 15 to March 31 for applications in the following geographic area:

> **NORTH: Fresno County Line SOUTH: Fresno County Line** EAST: State Highway 99 **WEST: Fresno County Line**

Observe the following directions to minimize off-site movement during aerial application of Galigan 2E. Minimization of off-site movement is the responsibility of the grower, aerial applicator and pest control advisor.

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable label(s) and this label have been satisfied.

Aerial application of Galigan 2E is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates are being applied during the commercial use season. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters are acceptable.

Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** Keep from freezing. Store above 32° F.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office for guidance.

#### **CONTAINER HANDLING:**

**Nonrefillable Container (five gallons or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. 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.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. 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.

Refillable Container (greater than 55 gallons): Refillable container. Refill this container with oxyfluorfen 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. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate area. Avoid breathing vapors. Use MSHA/NIOSH self-contained breathing apparatus or air-line respirator for large spills in confined areas. Dike the spill with inert material (sand, earth, etc.) and transfer the liquid or solid diking material to separate containers for recovery or disposal. Remove the contaminated clothing promptly and wash exposed skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and bodies of water.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.By using this product, user or buyer accepts the following **CONDITIONS**, **DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY.CONDITIONS**: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ADAMA. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ADAMA makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of ADAMA is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ADAMA disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at ADAMA's election, the replacement of product.

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