

FEB 2 2000

Donald J. Porter  
Zeneca Ag Products  
1800 Concord Pike  
P.O. Box 15458  
Wilmington, DE 19850-5458

Dear Mr. Porter:

**Subject: Amended Labeling  
Devrinol 50-DF Selective Herbicide  
EPA Registration No. 10182-258  
Your Submission Dated January 12, 2000**

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or 4(a) when the Agency requires all registrants of similar products to submit such data.

2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. When the labeling is printed assure that the Signal Word and Keep Out Of The Reach of Children meet the type size requirements specified by 40 CFR 156.10(h)(1)(iv).

b. Assure that the User Safety Recommendations and Agricultural Use Requirements sections appear in a box or are otherwise highlighted from other label text.

3. Submit one (1) copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,



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

Enclosure

3/37

**DEVIRINOL® 50-DF Selective Herbicide**

**Dry Flowable**

For use on certain Citrus, Nuts, Pome fruits, Small  
fruits, Stone fruits, Vegetables and Tobacco

**COMPLETE DIRECTIONS FOR USE**

**ACTIVE INGREDIENT:**

N,N-Diethyl-2-(1-naphthalenyloxy)-propionamide . . . . . 50%

**INERT INGREDIENTS:** . . . . . 50%

**TOTAL** . . . . . 100%

Contains 50 lbs. of Active Ingredient per 100 lbs.

EPA Reg. No. 10182-258  
EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
FEB 2 2000**

**Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
10182-258**

Made in U.S.A.

**ZENECA Ag Products  
ZENECA Ag Products Inc.  
Wilmington, DE 19850-5458**

4/37

**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

---

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

---

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

**TABLE OF CONTENTS**

	<u>Page</u>
STATEMENT OF PRACTICAL TREATMENT .....	
PRECAUTIONARY STATEMENTS .....	
Environmental Hazards .....	
General Precautions .....	
DIRECTIONS FOR USE .....	
STORAGE AND DISPOSAL .....	
Applications Through Irrigation Systems (Western Region and Florida Only) .....	
Use Precautions .....	
For Sprinkler Irrigation .....	
For Flood (Basin), Furrow and Border Irrigation .....	
Weeds Controlled by 4 to 8 Lbs DEVIRINOL 50-DF Per Acre (California Only) -	
Surface Application .....	
Weeds Controlled by 8 Lbs DEVIRINOL 50-DF Per Acre - Surface Application .....	
Allowable Time for Treatment to Remain on Soil Surface (By Region) .....	
Fruit and Nut Crops - Surface Application .....	
Other Crops - Surface Application .....	
Weeds Controlled by 2 to 4 lbs DEVIRINOL 50-DF Preplant Incorporated Application .....	
Tobacco and Vegetables Preplant Incorporated Application .....	
Transplanted Tobacco - Posttransplant Surface and Layby Surface Applications	
(Kentucky, Maryland, Virginia and Southeast Region Only) .....	
Sweet Potatoes - Posttransplant Surface and Plant Bed Applications .....	
Rotational Crop Restrictions .....	
Tank Mixtures - Fruit and Nut Crops	
DEVIRINOL 50-DF/GRAMOXONE EXTRA Combination .....	
DEVIRINOL 50-DF/Goal 1.6-E Combination (California Only) .....	
DEVIRINOL 50-DF/Goal 1.6-E/GRAMOXONE EXTRA Combination	
(California Only) .....	
DEVIRINOL 50-DF/Karmex 80-WP Combination .....	
DEVIRINOL 50-DF/Roundup Tankmix .....	
DEVIRINOL 50-DF/Simazine 80-WP Combination (California and	
Pacific Northwest Only) .....	
DEVIRINOL 50-DF/Simazine 80-WP/GRAMOXONE EXTRA Combination	
(California and Pacific Northwest Only) .....	
DEVIRINOL 50-DF/Sinbar 80-WP Combination .....	
Tank Mixtures - Vegetables and Tobacco	
DEVIRINOL 50-DF/TILLAM 6-E Tankmix Combination Applied	
Preplant Incorporated .....	
DEVIRINOL 50-DF/TILLAM 6-E/DYFONATE 4-EC Tankmix Combination .....	

**FIRST AID STATEMENT OF PRACTICAL TREATMENT**

~~Immediately start the procedures given below and contact a Poison Control Center, a physician, or the nearest hospital Report the type and extent of exposure, describe the victim's symptoms and follow the advice given.~~

~~IF SWALLOWED: Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person.~~

~~IF ON SKIN: Flush all affected areas with plenty of water for several minutes. Seek medical attention if skin irritation occurs.~~

~~IF IN EYES: Immediately flush eyes with large amounts of running water for 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention immediately.~~

~~IF INHALED: Remove to fresh air. Seek medical attention if respiratory irritation occurs or if breathing becomes difficult.~~

**IF SWALLOWED:**

- Call a Poison Control Center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a Poison Control Center or doctor.

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a Poison Control Center or doctor for treatment advice.

**IF ON SKIN:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a Poison Control Center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a Poison Control Center or doctor for further treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

7/37

---

**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL 1-800-F-A-S-T-M-E-D (327-8633)**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC  
1-800-424-9300.**

---

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

~~MAY BE HARMFUL IF SWALLOWED. CAUSES MODERATE EYE INJURY AND SKIN IRRITATIONS. Do not breathe spray mist. Avoid contact with skin, eyes and clothing.~~

Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing dust.

**PERSONAL PROTECTIVE EQUIPMENT**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Waterproof gloves.
- Shoes plus socks.

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.

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

---

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
  - Remove clothing 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**

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

Do not contaminate water when disposing of equipment washwaters. Apply this product as specified on this label.

Do not contaminate water used for domestic purposes

Avoid Contamination of Food and Feed.

**GENERAL PRECAUTIONS**

Read all instructions before using.

Use only for recommended purposes and at recommended rates.  
Do not overdose.

Except where specifically noted, DEVIRINOL® 50-DF Herbicide is not recommended for use on soil containing more than 10% organic matter.

Spraying on ground heavily covered with leaves or trash may adversely affect weed control.

Do not apply to frozen ground.

To minimize injury to succeeding crops not listed on this label, a deep disc plow or moldboard plow operation (minimum 10 inches) must be carried out prior to planting. To avoid injury to crops not specified on the label, do not plant until 12 months after the last application of DEVIRINOL 50-DF.

When applied at rates no greater than 4 lb. DEVIRINOL 50-DF per acre, rotational crops which are not registered on this label may be planted no sooner than 12 months after application when harvest and use of mature crop(s) is only for food or feed purposes. Crops are not to be grazed or harvested for food or feed purposes earlier than maturity.



9/37

### 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) of 12 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves.
- Shoes plus socks.

---

### STORAGE AND DISPOSAL

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

**STORAGE:** Keep container closed when not in use. Store in a cool dry place. Do not store near seeds, fertilizer or food stuffs.

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

10/37

**CONTAINER DISPOSAL:** Do not reuse. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

---

DEVIRINOL 50-DF is a selective surface-applied or incorporated herbicide for use in certain types of newly planted or established crops. DEVIRINOL 50-DF does not control established weeds. All weed growth and crop stubble in the fields must be thoroughly worked into the soil prior to planting. Spray equipment should be carefully calibrated before use and checked frequently during application to be sure nozzles are operating properly and are delivering a uniform spray pattern. Apply the recommended rate of DEVIRINOL 50-DF in 20 to 100 10 to 50 gallons of water per acre in a low pressure boom-type sprayer.

Be sure the spray tank, boom and nozzle have been thoroughly flushed with clean water before use. Sufficient jet or mechanical agitation should be provided during the filling operation and during application.

When mixing DEVIRINOL 50-DF alone, or in combination with other recommended wettable powders, make a slurry and add to a nearly filled spray tank with adequate agitation. This will enhance initial mixing. Recommended contact herbicides and spreaders should always be added to a nearly filled spray tank. Never add them to the slurry.

**APPLICATIONS THROUGH IRRIGATION SYSTEMS (Western Region and Florida Only)**

- Do not allow treatment to contact foliage or crop.
- Remove existing weed growth before application.
- Meter the DEVIRINOL 50-DF into the irrigation water during the entire period.
- Apply with sufficient water to wet the soil to a depth of 2-4 inches.
- Good agitation should be maintained during the entire application period.
- Avoid run-off.

**Western Region (Tree crops and Grapes Only):** DEVIRINOL 50-DF may be applied at the recommended rates through irrigation water for preemergence control of listed weeds in grapes and tree crops.

**Florida (Citrus Only):** DEVIRINOL 50-DF may be applied at the recommended rates through irrigation water (microsprinklers only) for preemergence control of listed weeds in citrus.

**USE PRECAUTIONS:**

- A. Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, microsprinkler, solid set, or hand move, flood (basin); furrow; border irrigation systems. Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- D. 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.
- E. 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.

**FOR SPRINKLER IRRIGATION:**

- 1. 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.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. 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 .
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. 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.
- 6. 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.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

**FOR FLOOD (BASIN), FURROW AND BORDER IRRIGATION:**

- 1. 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 a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- 2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- a. 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.
- b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow-of fluid back toward the injection pump.
- c. 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.
- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e. 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.
- f. 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.

**NOTE:** All rates are given on a broadcast basis, per acre. Reduce rates proportionately for band or strip treatment.

**WEEDS CONTROLLED BY 4 to 8 LBS. DEVRINOL 50-DF PER ACRE  
(CALIFORNIA ONLY) - SURFACE APPLICATION**

**NOTE:** DEVRINOL 50-DF does not control established weeds.

WEEDS CONTROLLED	
Barnyardgrass, Junglerice	<i>Echinochloa</i> spp.
Annual Bluegrass	<i>Poa annua</i>
Large (Hairy) Crabgrass	<i>Digitaria sanguinalis</i>
Red Sprangletop	<i>Leptochloa filiformis</i>

**DIRECTIONS FOR USE**

For control of all weeds listed, apply 4 to 8 pounds DEVRINOL 50-DF per broadcast acre to the soil surface. Apply in the fall through early spring prior to emergence. Do not apply DEVRINOL 50-DF to frozen ground. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur the treatment must be shallowly incorporated or irrigated-in following application (sprinkler or flood) with sufficient water to wet the soil to a depth of 2-4 inches.

**WEEDS CONTROLLED BY 8 LBS. DEVIRINOL 50-DF PER ACRE -  
SURFACE APPLICATION**

**NOTE:** DEVIRINOL 50-DF does not control established weeds.

<b>WEEDS CONTROLLED</b>	
<b>ANNUAL GRASSES:</b>	
Barnyardgrass, Junglerice	<i>Echinochloa</i> spp.
Foxtail Barley	<i>Hordeum jubatum</i>
Wild Barley	<i>Hordeum leporinum</i>
Annual Bluegrass	<i>Poa annua</i>
Bromes	<i>Bromus</i>
Cheatgrass	<i>B. secalinus</i>
Downy Brome	<i>B. tectorum</i>
Ripgut Brome	<i>B. rigidus</i>
Soft Chess	<i>B. mollis</i>
Canarygrass	<i>Phalaris canariensis</i>
Large (Hairy) Crabgrass	<i>Digitaria sanguinalis</i>
Smooth Crabgrass	<i>Digitaria ischaemum</i>
Southwestern Cupgrass	<i>Eriochloa gracilis</i>
Foxtail	<i>Setaria</i>
Bristly Foxtail	<i>S. verticilla</i>
Giant Foxtail	<i>S. faberi</i>
Green Foxtail	<i>S. viridis</i>
Yellow Foxtail	<i>S. lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Seedling Johnsongrass	<i>Sorghum halpense</i>
Wild Oats	<i>Avena fatua</i>
Panicums	<i>Panicum</i>
Guineagrass	<i>P. Paximum</i>
Fall Panicum	<i>P. dichotomiflorum</i>
Texas Panicum	<i>P. texanum</i>

<b>WEEDS CONTROLLED</b>	
Witchgrass	<i>P. capillare</i>
Italian Ryegrass	<i>Lolium multiflorum</i>
Sandbur	<i>Cenchrus</i> spp.
Mexican Sprangletop	<i>Leptochloa uninervia</i>
Red Sprangletop	<i>Leptochloa filiformis</i>
Stinkgrass	<i>Eragrostis cilianensis</i>
<b>ANNUAL BROADLEAF WEEDS:</b>	
Carpetweed	<i>Mollugo verticillata</i>
Common Chickweed	<i>Stellaria media</i>
Coast Fiddleneck	<i>Amsinckia intermedia</i>
Cudweed, Purple	<i>Gnaphalium purpureum</i>
Redstem Filaree	<i>Erodium cicutarium</i>
Common Groundsel	<i>Senecio vulgaris</i>
Prostrate Knotweed	<i>Polygonum aviculare</i>
Lambsquarters	<i>Chenopodium album</i>
Prickly Lettuce	<i>Lactuca serriola</i>
Little Mallow*	<i>Malva parviflora</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Pineappleweed	<i>Matricaria matricarioides</i>
Common Purslane	<i>Portulaca oleracea</i>
Horse Purslane	<i>Trianthema portulacastrum</i>
Common Ragweed**	<i>Ambrosia artemisiifolia</i>

**DIRECTIONS FOR USE**

**NOTE:** All rates are given on a broadcast basis. Reduce rates proportionately for band or strip treatment.

For control of all weeds listed, apply 8 pounds DEVRINOL 50-DF per broadcast acre to the soil surface. Apply in the fall through early spring prior to weed emergence. Do not apply DEVRINOL 50-DF to frozen ground. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur the treatment must be shallowly incorporated or irrigated-in following application (sprinkler or flood) with sufficient water to wet the soil to a depth of 2 to 4 inches.

**ALLOWABLE TIME FOR TREATMENT TO REMAIN ON SOIL SURFACE (BY REGION):**

**WEST:** Three weeks (November through February) or 24 hours (remainder of year).

**PACIFIC NORTHWEST:** Three weeks (Fall through Early Spring) or 24 hours (remainder of year).

**OTHER REGIONS:** 24 hours.

Use as a directed spray and avoid contact with fruit or foliage.  
Do not apply when fruit or nuts are on the ground during the harvest period.  
Do not graze treated areas.

(Regional Use Map)

**FRUIT AND NUT CROPS - SURFACE APPLICATION**

**RECOMMENDATIONS USE RATES**

DEVRINOL 50-DF is recommended for use on the following crops. Refer to regional map under "DIRECTIONS FOR USE".

**Almonds: (All Regions)**

Rate: 8 pounds DEVRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Apples: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest .

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Apricots: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest .

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Avocados: (Western Region Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. An additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to established crop only.

**Blueberries: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Caneberries (blackberries, raspberries, boysenberries and loganberries): (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Cherries: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Currants: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Figs: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.



**Filberts: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Grapefruit: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Grapes: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Kiwifruit: (Western Region Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. An additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Lemons: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Nectarines: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Olives: (Western Region Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. An additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Oranges: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Peaches: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Pears: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Pecans: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Persimmons: (Western Region Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. An additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to established crop only.

**Pistachios: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Plums: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Pomegranates: (Western Region Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. Do not apply within 6 months of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to established crop only.

**Prunes: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Rhubarb: (Pacific Northwest Only)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface in winter when rhubarb is dormant.

**Strawberries: (All Regions)**

Rate: 8 Pounds DEVTRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly transplanted and established crop. Delay application until desired number of daughter plants have become established. Do not apply from bloom through harvest.

**Tangelos: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 day of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Tangerines: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**Walnuts: (All Regions)**

Rate: 8 pounds DEVTRINOL 50-DF per broadcast acre. In the Western Region an additional 8 pounds may be applied during the growing season. Do not apply within 35 days of harvest.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop.

**OTHER CROPS - SURFACE APPLICATION****RECOMMENDATIONS USE RATES****Artichokes: (Western Region Only)**

Rate: 8 pounds DEVRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to established crop only.

**Asparagus: (All Region)**

Rate: 8 pounds DEVRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to established crop only.

**Mint: (Pacific Northwest Only)**

Rate: 8 pounds DEVRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to newly planted and established crop .

Where recommended for use on established crops, apply DEVRINOL 50-DF only to stands that have been established for at least one growing season. Where recommended for use on evenly planted crops, application may be made immediately after planting young trees, vines, and bushes.

**WEEDS CONTROLLED BY 2 TO 4 LBS. DEVRINOL 50-DF  
PREPLANT INCORPORATED APPLICATION****NOTE:** DEVRINOL 50-DF does not control established weeds.

<b>WEEDS CONTROLLED</b>	
<b>ANNUAL GRASSES:</b>	
Barnyardgrass, Junglerice	<i>Echinochloa</i> spp.
Crabgrass	<i>Digitaria</i> spp.
Foxtails	<i>Setaria</i>
Giant Foxtail	<i>S. faberi</i>
Green Foxtail	<i>S. viridis</i>
Yellow Foxtail	<i>S. lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Seedling Johnsongrass	<i>Sorghum halepense</i>
Panicums	<i>Panicum</i>
Fall Panicum	<i>P. dichotomiflorum</i>

WEEDS CONTROLLED	
Witchgrass	<i>P. capillare</i>
Stinkgrass	<i>Eragrostis cilianensis</i>
<b>ANNUAL BROADLEAF WEEDS:</b>	
Carpetweed	<i>Mollugo verticillata</i>
Purple Cudweed	<i>Gnaphalium purpureum</i>
Galinsoga*	<i>Galinsoga</i> spp.
Lambsquarters	<i>Chenopodium album</i>
Redroot Pigweed	<i>Amaranthus retroflexus</i>
Smooth Pigweed	<i>Amaranthus hybridus</i>
Common Purslane	<i>Portulaca oleracea</i>
Florida Pusley	<i>Richardia scabra</i>
Common Ragweed**	<i>Ambrosia artemisiifolia</i>

\*Controlled at 4 lb. DEVRINOL 50-DF

\*\*Suppression

**DIRECTIONS FOR USE OF DEVRINOL 50-DF PREPLANT INCORPORATED**

On flat-planted or bedded crops apply, before planting, to well-worked soil that is dry enough to permit thorough incorporation to a depth of 1 to 2 inches. Incorporate the same day as applied, using equipment which will result in uniform incorporation of the herbicide to the desired depth. Whenever a rate range is recommended for DEVRINOL 50-DF, use the lower rate on light soil (coarse textured-sandy) and the higher rate on heavy soil (fine textured-clay).

After harvest or prior to planting of succeeding crops, a deep moldboard or disc plowing operation must be carried out.

When applied at rates no greater than 4 lb. DEVRINOL 50-DF per acre, rotational crops which are not registered on this label may be planted no sooner than 12 months after application when harvest and use of the mature crop(s) only is for food or feed purposes. Crops are not to be grazed or harvested for food or feed purposes earlier than maturity.

**TOBACCO AND VEGETABLES PREPLANT INCORPORATED APPLICATION**

**RECOMMENDATIONS USE RATES**

**NOTE:** All rates are given on a broadcast basis. Reduce rates proportionately for band or strip treatment.

**Broccoli: (Maine Only)**

**Rate:** 2-4 pounds DEVTRINOL 50-DF per broadcast acre. Do not exceed 4 pounds DEVTRINOL 50-DF per acre per crop season.

**Use Recommendations:** Apply to weed free surface. May be applied to direct seeded and transplanted crop, preplant incorporated or as a surface spray after planting. Shallow incorporate no deeper than seeding depth or sprinkler irrigate within 24 hours using sufficient water to wet the soil to a depth of 2-4 inches. Use the lower rate on light soil (coarse textured-sandy) and the higher rate on heavy soil (fine textured-clay).

**Cole Crops - Broccoli, Brussels Sprouts, Cauliflower: (Arizona and California Only).**

**Rate:** 1-2 pounds DEVTRINOL 50-DF per broadcast acre.

**Use Recommendations:** For suppression of Annual Bluegrass, Barnyardgrass, Common Groundsel, Common Purslane and Redroot Pigweed. Apply to a weed free soil surface. May be applied to direct seeded and transplanted crop, preplant incorporated or as a surface spray after planting. Shallow incorporate to a depth of 1-2 inches or sprinkler irrigate within 24 hours using sufficient water to wet the soil to a depth of 2-4 inches. Use the lower rate on light soil (coarse textured - sandy) and the higher rate on heavy soil (fine textured - clay).

**Cole Crops - Broccoli, Brussels Sprouts, Cabbage, Cauliflower: (Northern Region Only)**

**Rate:** 2 pounds DEVTRINOL 50-DF per broadcast acre.

**Use Recommendations:** Apply to a weed free surface. May be applied to direct seeded and transplanted crop, preplant incorporated or as a surface spray after planting. Shallow incorporate no deeper than seeding depth or sprinkler irrigate within 24 hours using sufficient water to wet the soil to a depth of 2-4 inches.

**Cole Crops - Broccoli, Brussels Sprouts, Cabbage, Cauliflower: (Pacific Northwest Only)**

**Rate:** 2-4 pounds DEVTRINOL 50-DF per broadcast acre.

**Use Recommendations:** Apply to a weed free surface. May be applied to direct seeded and transplanted crop, preplant incorporated or as a surface spray after planting. Shallow incorporate no deeper than seeding depth or sprinkler irrigate within 24 hours using sufficient water to wet the soil to a depth of 2-4 inches. Use the lower rate on light soil (coarse textured - sandy) and the higher rate on heavy soil (fine textured - clay).

**Cole Crops - Broccoli, Brussels Sprouts, Cabbage, Cauliflower: (Southeast Region Only)**

Rate: 4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free surface. May be applied to direct seeded (except in Florida) and transplanted crop, as a surface spray after planting. Sprinkler irrigate within 24 hours using sufficient water to wet the soil to a depth of 2-4 inches.

**Cole Crops - Broccoli, Brussels Sprouts, Cabbage, Cauliflower: (Southwest Region Only)**

Rate: 2-4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to direct seeded and transplanted crop, preplant, incorporated or as a surface spray after planting. Incorporate the surface spray to a shallow depth of one inch, avoiding the seed placement when mixing the soil. Use the lower rate on light soil (coarse textured - sandy) and the higher rate on heavy soil (fine textured - clay).

**Eggplants: (All Regions)**

Rate: Before transplanting, apply 2-4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to weed free soil surface. May be applied to transplanted crop only. Use the lower rate on light soil (coarse textured sandy) and the higher rate on heavy soil (fine textured-clay).

**Peppers: (All Regions)**

Rate: 2-4 pounds DEVIRINOL 50-DF per-broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to direct seeded and transplanted crop. Use the lower rate on light soil (coarse textured - sandy) and the higher rate on heavy soil (fine textured-clay).

**Tomatoes: (All Regions)**

Rate: 2-4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. May be applied to direct seeded and transplanted crop. Use the lower rate on light soil (coarse textured - sandy) and the higher rate on heavy soil (fine textured-clay).

**Tobacco: (All Regions except North and South Carolina)**

Rate: Before transplanting, apply 2-4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. Use the lower rate on light soil (coarse textured sandy) and the higher rate on heavy soil (fine textured - clay). In Southeast only: Apply up to 3 weeks before transplanting. No waiting period is necessary.

**TRANSPLANTED TOBACCO - POSTTRANSPLANT SURFACE AND  
LAYBY SURFACE APPLICATIONS  
(KENTUCKY, MARYLAND, VIRGINIA AND SOUTHEASTERN REGION ONLY)**

**WEEDS CONTROLLED:**

See list of weeds controlled under DEVIRINOL 50-DF preplant incorporated application.

**DIRECTIONS FOR USE**

**At Transplanting:** Apply the recommended amount of DEVIRINOL 50-DF to the soil surface immediately after transplanting. May be applied over the top of transplants.

**At Layby:** Apply the recommended amount of DEVIRINOL 50-DF in a band immediately after the layby cultivation. Apply as a directed spray to the row middles.

Use ~~20 to 100~~ 10 to 50 gallons of spray per acre. For best results the treatment must reach the zone of weed seed germination. If rainfall does not occur within 5 days after application, the treatment must be shallowly incorporated or irrigated-in with sufficient overhead irrigation to wet the soil to a depth of 2 to 4 inches.

**RECOMMENDATIONS USE RATES**

Rate: Apply 2 to 4 pounds DEVIRINOL 50-DF per broadcast acre.

Use Recommendations: Apply to a weed free soil surface. Reduce rates proportionately for band application. Treatments may follow a preplant incorporated application of DEVIRINOL 50-DF or DEVIRINOL 50-DF/TILLAM® 6-E. Do not apply more than 4 pounds DEVIRINOL 50-DF in any one season.

**SWEET POTATOES - POSTTRANSPLANT SURFACE AND  
PLANT BED APPLICATIONS**

**WEEDS CONTROLLED:**

See list of weeds controlled under DEVIRINOL 50-DF preplant incorporated application.

**DIRECTIONS FOR USE**

**At Transplanting: (All Regions)** Apply the recommended amount of DEVIRINOL 50-DF to the soil surface immediately after transplanting.

**Plant Beds: (North Carolina Northern and Southeastern Regions Only)** Apply the recommended amount of DEVIRINOL 50-DF to the soil surface after sweet potato roots are covered with soil, but prior to soil cracking and emergence of sweet potato plants.

Use ~~20 to 100~~ 10 to 50 gallons of spray per acre. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur within 24 hours after



application, the treatment must be shallowly incorporated or irrigated-in with sufficient overhead irrigation to wet the soil to a depth of 2 to 4 inches.

**RECOMMENDATIONS USE RATES**

Rate: Apply 2 to 4 pounds DEVINOL 50-DF per broadcast acre.  
Use Recommendations: Apply to a weed free soil surface. use the lower rate on light soil (coarse textured sandy) and the higher rate on heavy soils (fine textured clay).

**ROTATIONAL CROP RESTRICTIONS**

When DEVINOL 50-DF is used on tobacco posttransplant or layby at 2 to 4 pounds, *surface applied, small grains may be seeded in rotation in the fall to prevent soil erosion.* These grains may be stunted but not otherwise adversely affected.

No tolerance is established for residues of DEVINOL 50-DF in small grains. Rotational cover crops must be destroyed by plowing under or otherwise prevented from reaching food or feed production.

If rotating out of tobacco the following spring, to avoid injury to crops not specified on this label do not plant until 12 months after the last DEVINOL 50-DF application.

When applied at rates no greater than 4 lb. DEVINOL 50-DF per acre, rotational crops which are not registered on this label may be planted no sooner than 12 months after application when harvest and use of the mature crop(s) only is for food or feed purposes. Crops are not to be grazed or harvested for food or feed purposes earlier than maturity.

**TANK MIXTURES - FRUIT AND NUT CROPS**

**IMPORTANT**

Observe all cautions and limitations on labeling of all products used in combination.

Make only one application per season.

Do not contaminate water by cleaning of equipment or disposal of wastes. Apply these combinations only as specified on this label.

For a tankmix application, apply the recommended dosage (see directions for use) in ~~20 to 400~~ 10 to 50 gallons of water per acre.

In any tankmix tankmixes which include including GRAMOXONE® EXTRA, add an approved nonionic spreader to the tank water spray mix, such as ORTHO® X-77 Spreader, at the rate of 8 oz. per 100 gallons.

**DEVRINOL 50-DF/GRAMOXONE EXTRA COMBINATION**

DEVRINOL 50-DF will not control emerged weeds. GRAMOXONE EXTRA may be used to control existing weeds when applied prior to, or in combination with DEVRINOL.

Refer to the section on DEVRINOL 50-DF surface application for a list of weeds controlled.

**DIRECTIONS FOR USE**

Follow use directions for DEVRINOL 50-DF surface application. Read the GRAMOXONE EXTRA label for timing with respect to stage of weed growth and for application methods recommended to minimize crop injury.

For control of all weeds listed, apply 8 pounds DEVRINOL 50-DF and 2 to 3 pints GRAMOXONE EXTRA per broadcast acre.

**RECOMMENDATIONS**

Consult the GRAMOXONE EXTRA label for recommended uses in orchards and vineyards. Then read the crop recommendations for DEVRINOL 50-DF surface application to insure that the combination may be used for a particular crop in your state. Recommended only for the uses specified on the GRAMOXONE EXTRA and DEVRINOL 50-DF labels. Do not apply this combination to caneberries.

**DEVRINOL 50-DF/GOAL® 1.6-E COMBINATION (CALIFORNIA ONLY)**

DEVRINOL 50-DF may be used in combination with GOAL® 1.6-E herbicide for control of additional weeds not controlled by DEVRINOL alone.

Additional weeds controlled preemergence by DEVIRINOL 50-DF/GOAL 1.6-E tankmix, applied preemergence to a relatively weed-free established berm or soil surface, at recommended rates:

WEEDS CONTROLLED	
Burclover	<i>Medicago lupulina</i>
Filaree, (Redstem, Broadleaf)	<i>Erodium cicutarium</i> <i>Erodium botrys</i>
Henbit	<i>Lamium amplexicaule</i>
London rocket	<i>Sisymbrium irio</i>
Redmaids	<i>Calandrinia caulescens</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>

**DIRECTIONS FOR USE - DORMANT APPLICATION, CALIFORNIA ONLY**

For control of all weeds listed, apply 8 pounds DEVIRINOL 50-DF and 5.0 quarts GOAL 1.6-E (2.0 lb active) per broadcast acre. Spray should be directed to the soil and the base of dormant trees or vines. Use of a low pressure sprayer equipped with a break-away boom and flat fan or off-center (OC) nozzle is recommended. For best results, the treatment must reach the zone of weed germination. Irrigation sufficient to wet the soil to a minimum depth of 2 to 4 inches is recommended for treatments made from November through February 15 if no rainfall occurs within three weeks of application.

**NOTE:** Applications made in October must be irrigated in (sprinkler or flood) the same day as applied with sufficient water to wet the soil to a minimum depth of 2 to 4 inches.

Cultural practices which result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of GOAL 1.6-E. For best results from the DEVIRINOL 50-DF/GOAL 1.6-E tankmix combination, application should be made to established berms or soil surfaces which are left undisturbed during the time period for which weed control is desired.

Read the GOAL 1.6-E label for specific use directions and precautions.

**RECOMMENDATIONS CROPS**

For use on almond, apricot, cherry, fig, grape, nectarine, peach, pear, pistachio, plum, prune and walnut in California only.

**NOTE:** To avoid possible crop injury follow these precautions:

- Apply only to dormant fruit or nut trees or grape vines. Do not apply when foliage, buds or fruit/nuts are present.
- Grapes: Do not apply to grapes established less than 3 years. Do not apply to grapes which are not staked or trellised.

**DEVIRINOL 50-DF/GOAL 1.6-E/GRAMOXONE EXTRA COMBINATION  
(CALIFORNIA ONLY)**

DEVIRINOL 50-DF/GOAL 1.6-E/GRAMOXONE EXTRA is recommended for residual preemergence control of susceptible broadleaf and grassy weeds. GRAMOXONE EXTRA is included in the tankmix to control existing emerged weeds.

For weeds controlled refer to the weed lists for DEVIRINOL 50-DF and DEVIRINOL 50-DF/GOAL 1.6-E tankmix surface applied.

**DIRECTIONS FOR USE**

For control of all weeds listed, apply 8 pounds DEVIRINOL 50-DF, 5 quarts GOAL 1.6-E (2.0 lb active) and 2 pints GRAMOXONE EXTRA per broadcast acre.

Follow the use directions and recommendations for the DEVIRINOL 50-DF/GOAL 1.6-E combination. Consult the GRAMOXONE EXTRA label for timing with respect to stage of weed growth and for application methods recommended to minimize crop injury.

**RECOMMENDATIONS CROPS**

For use on almond, apricot, cherry, fig, grape, nectarine, peach, pear, plum, prune and walnut in California only.

**DEVIRINOL 50-DF/KARME<sup>®</sup>X DF WP COMBINATION**

DEVIRINOL 50-DF may be used in combination with KARME<sup>®</sup>X DF WP herbicide for improved control of annual broadleaf weeds. This tankmix does not control emerged weeds.

**DIRECTIONS FOR USE**

**NOTE:** All rates are given on a broadcast basis. Reduce rates proportionately for band or strip treatment.

For control of all weeds listed, apply 8 pounds DEVIRINOL 50-DF and 1.25 pounds KARME<sup>®</sup>X DF WP per broadcast-acre to the soil surface. Apply in the fall through early spring prior to weed emergence. Do not apply to frozen ground. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur the treatment must be shallowly incorporated or irrigated-in following application (sprinkler or flood) with sufficient water to wet the soil to a depth of 2 to 4 inches. In the Western and Pacific Northwest

Regions treatment made in November through February must be incorporated-in or irrigated-in if no rainfall occurs within three weeks of application.

For treatments made other than in November through February in these regions, and for all treatments applied in the Northern, Southwestern, and Southeastern Regions regardless of season, the treatment must be incorporated-in or irrigated-in within 24 hours if no rainfall occurs.

- Use as a directed spray and avoid contact with fruit or foliage.
- Do not apply when fruit is on the ground during the harvest period.
- Do not graze treated areas.

**RECOMMENDATIONS CROPS**

For use on the following crops: Apples and peaches (All Regions). Citrus (California and Arizona only). Grapes, pears and walnuts (California only).

**NOTE:** To avoid possible crop injury follow these precautions:

- **Apples and Pears:** Use only under trees established in the orchard for at least 1 year; do not treat varieties grafted on full-dwarf root stocks.
- **Citrus:** Use only under trees established in the grove for at least 1 year.
- **Grapes:** Apply only to established vineyards (at least 3 years old) as a band treatment to grape rows. Do not apply to vines with trunks less than 1 1/2" in diameter as injury may result. On soils low in clay or organic matter (1 to 2%), severe plant injury may result if heavy rainfall or more than one inch of irrigation occurs soon after treatment. This risk must be assumed by the user.
- **Peaches:** Use only under trees established in the orchard for at least 2 years.
- **Walnuts:** Use only under trees established in the orchard for at least 1 year.

**DEVTRINOL 50-DF/ROUNDUP® TANKMIX**

**DEVTRINOL 50-DF/ROUNDUP COMBINATION**

ROUNDUP® herbicide may be used to control existing weeds when applied prior to or in combination with DEVTRINOL 50-DF herbicide.

**DIRECTIONS FOR USE**

Follow use directions for DEVTRINOL 50-DF surface application. Read the ROUNDUP label for timing with respect to stage of weed growth and for application methods. For control of all weeds listed, apply 8 pounds of DEVTRINOL 50-DF in 20 to 100 10 to 50 gallons of water per broadcast acre. For application rates of ROUNDUP, refer to the ROUNDUP label.

**RECOMMENDATIONS**

Consult the ROUNDUP label for recommended uses in orchards and vineyards. Then read the crop recommendations for DEVIRINOL 50-DF surface application to insure that the combination may be used for a particular crop in your state. Recommended only for the uses specified on the ROUNDUP and DEVIRINOL 50-DF labels.

**DEVIRINOL 50-DF/SIMAZINE® 80-WP COMBINATION  
(CALIFORNIA AND PACIFIC NORTHWEST ONLY)**

DEVIRINOL 50-DF may be used in combination with SIMAZINE® 80-WP herbicide for control of additional weeds not controlled by DEVIRINOL 50-DF alone. This tankmix does not control emerged weeds.

**Additional weeds controlled by DEVIRINOL 50-DF/SIMAZINE 80-WP tankmix, surface applied, at recommended rates:**

WEEDS CONTROLLED	
California burclover	<i>Medicago polymorpha</i>
Henbit	<i>Lamium amplexicaule</i>
London rocket	<i>Sisymbrium irio</i>
Marestail (horseweed)	<i>Conyza canadensis</i>
Miners lettuce	<i>Montia perfoliata</i>
Panicle willoweed	<i>Epilobium paniculatum</i>
Redmaids (rockpurslane)	<i>Calandrinia caulescens</i>

**DIRECTIONS FOR USE**

For control of all weeds listed, apply 8 pounds DEVIRINOL 50-DF and 0.6 to 1.25 pounds SIMAZINE 80-WP per broadcast acre. Limit treatment of almonds, grapes and peaches to a 4 to 8 foot band centered on the tree row, reducing the dosage proportionately. Apply in the fall through early spring, prior to weed emergence. For best results, the treatment must reach the zone of weed seed germination. Treatments made other than in November through February must be shallowly incorporated or irrigated-in the same day as applied (sprinkler or flood) with sufficient water to wet the soil to a depth of 2 to 4 inches. Irrigation or shallow incorporation is recommended for treatments made from November through February if no rainfall occurs within three weeks of application. Read directions on the SIMAZINE Label concerning nozzle and screen sizes.

Use as a directed spray and avoid contact with fruit or foliage. Do not apply when fruit or nuts are on the ground during the harvest period. Do not graze treated areas.

**RECOMMENDATIONS CROPS**

For use on almonds, apples, avocados, grape fruit, grapes, lemons, olives, oranges, peaches, pears, and walnuts in California and apples, filberts, grapes and walnuts in the Pacific Northwest.

**NOTE:** To avoid possible crop injury follow these precautions.

- **Apples and Pears:** Make application only to orchards where trees have been established one year or more.
- **Almonds and Peaches (California Only):** Do not treat trees established in the orchard less than 3 years. Do not treat the Mission variety of almonds. Do not apply to almond trees propagated on plum rootstocks. Do not replant almonds or peaches in treated soil.
- Do not apply on gravelly, sandy, or loamy sand soil, or on soil with less than 1% organic matter. Do not treat areas where water will accumulate (flood or furrow irrigation water should not be applied to any treated areas or allow to stand on treated areas).
- **Filberts (Oregon and Washington Only):** Do not apply on gravelly, sandy or loamy sand soil.
- **Grapes:** Do not use in vineyards established less than three years.
- **Grapefruit, Lemons, and Oranges (California Only).** Do not use in the Imperial, Coachella, or Palo Verde Valleys: Do not use in nurseries. Do not apply to bedded grapefruit, lemons, or oranges. Do not apply to trees under stress from freeze damage for one year after the freeze.
- **Walnuts:** Do not apply to sandy soil. Leveling and furrowing operations after application will lessen effectiveness of weed control.

**DEVRINOL 50-DF/SIMAZINE 80-WP/GRAMOXONE EXTRA COMBINATION  
(CALIFORNIA AND PACIFIC NORTHWEST ONLY)**

DEVRINOL 50-DF/SIMAZINE 80-WP will not control emerged weeds. GRAMOXONE EXTRA may be used to control existing weeds when applied prior to, or in combination with DEVRINOL/SIMAZINE.

For weeds controlled refer to the weed lists for DEVRINOL 50-DF and DEVRINOL/SIMAZINE tankmix surface applied.

For control of all weeds listed, apply 8 pounds DEVRINOL 50-DF, 0.6 to 1.25 pounds SIMAZINE 80-WP, and 2 to 3 pints GRAMOXONE EXTRA per broadcast acre.

Follow the use directions and recommendations for the DEVRINOL 50-DF/SIMAZINE 80-WP combination. Consult the GRAMOXONE EXTRA label for timing with respect to stage of weed growth and for application methods recommended to minimize crop injury.

**RECOMMENDATIONS CROPS**

For crop recommendations, read the section on DEVRINOL 50-DF/SIMAZINE 80-WP.

### DEVINOL 50-DF/SINBAR® 80-WP COMBINATION

DEVINOL 50-DF may be used in combination with SINBAR® 80-WP herbicide for improved control of annual broadleaf weeds. This tankmix does not control emerged weeds.

#### DIRECTIONS FOR USE

**NOTE:** All rates are given on a broadcast basis. Reduce rates proportionately for band or strip treatment.

For control of all weeds listed, apply 8 pounds DEVINOL 50-DF and 1.25 pounds SINBAR 80-WP per broadcast acre to the soil surface. Apply in the fall through early spring prior to weed emergence. Do not apply to frozen ground. For best results, the treatment must reach the zone of weed seed germination. If rainfall does not occur the treatment must be shallowly incorporated or irrigated-in following application (sprinkler or flood) with sufficient water to wet the soil to a depth of 2 to 4 inches. In the Western and Pacific Northwest Regions treatment made in November through February must be incorporated-in or irrigated-in if no rainfall occurs within three weeks of application. For treatments made other than in November through February in these regions, and for all treatments applied in the Northern, Southwestern, and Southeastern Regions regardless of season, the treatment must be incorporated-in or irrigated-in within 24 hours if no rainfall occurs. Use as a directed spray and avoid contact with fruit or foliage. Do not apply when fruit is on the ground during the harvest period. Do not graze treated areas.

#### RECOMMENDATIONS CROPS

For use on apples, peaches and citrus (restrict use on citrus to California only) and mint (restrict use on mint to Pacific Northwest only).

**NOTE:** To avoid possible crop injury follow these precautions:

- **Apples and Peaches:** Where crop is grown under furrow irrigation or under raised-berm flood irrigation (trees 4" to 6" above waterline), apply only as a band treatment. Do not treat trees planted in the bottom of irrigation furrows or trees grown under flat flood or basin irrigation, and do not use on eroded areas where subsoil or tree roots are exposed, as injury to trees may result. Use only on trees established in the orchard for at least two years.
- **Citrus:** Temporary yellowing of citrus leaves may occur following treatment. Treatment may be used on coarse soils but is not to be used on sands low in organic matter (less than 1%), on poorly drained soils, nor on trees planted in irrigation furrows, as injury to trees may result. Treated areas may be planted to citrus trees one year after last application. Use only on trees established in the grove for at least one year.
- **Mint:** Apply in the fall through early spring as a postharvest treatment after last cultivation.



**TANK MIXTURES - VEGETABLES AND TOBACCO****IMPORTANT**

Observe all cautions and limitations on labeling of all products used in combination.

Make only one application per season.

Do not contaminate water by cleaning of equipment or disposal of wastes.

In each case where a range of rates is given, the lower rates should be used on light (coarse) textured soils and soils low in organic matter. The higher rates should be used on heavy (fine) textured soils.

After harvest or prior to planting of succeeding crops, a deep moldboard or disc plowing operation must be carried out. To avoid injury to crops not specified on the label, do not plant until 12 months after the last DEVIRINOL application.

When applied at rates no greater than 4 lb. DEVIRINOL 50-DF per acre, rotational crops which are not registered on this label may be planted no sooner than 12 months after application when harvest and use of the mature crop(s) only is for food or feed purposes. Crops are not to be grazed or harvested for food or feed purposes earlier than maturity.

**DIRECTIONS FOR USE**

The recommended tankmix controls weeds by interfering with normal seed germination and seedling development. It does not control established weeds. All weed growth and crop stubble should be thoroughly worked into the soil before treatment.

**TANKMIX DIRECTIONS**

Follow directions given in the sections DEVIRINOL 50-DF GENERAL DIRECTIONS FOR USE AND TANK MIXTURES - IMPORTANT.

At labeled spray volumes of ~~20~~ 10-50 gallons per acre on transplanted tobacco, DEVIRINOL 50-DF is physically compatible with DYFONATE<sup>®</sup>, Dasanit<sup>®</sup>, Diazinon<sup>®</sup>, Nema-cur<sup>®</sup>, Ridomil<sup>®</sup> and TILLAM<sup>®</sup>.

**DEVIRINOL 50-DF/TILLAM® 6-E TANKMIX COMBINATION  
APPLIED PREPLANT INCORPORATED**

A tankmix combination of DEVIRINOL 50-DF and TILLAM 6-E herbicide can be applied and mixed (incorporated) into the soil before planting for weed control in tomatoes and tobacco.

<b>ADDITIONAL WEEDS CONTROLLED BY DEVIRINOL/TILLAM TANKMIX AT RECOMMENDED RATES</b>	
<b>ANNUAL GRASSES:</b>	
Bermudagrass	<i>Cynodon dactylon</i>
Narrowleaf Signalgrass	<i>Brachiaria piligera</i>
Wild oats	<i>Avena fatua</i>
Millet, foxtail	<i>Setaria italica</i>
<b>ANNUAL BROADLEAF WEEDS:</b>	
Henbit (Deadnettle)	<i>Lamium amplexicaule</i>
Nettleleaf goosefoot	<i>Chenopodium murale</i>
Hairy nightshade*	<i>Solanum villosum</i>
Blackeyed Susan	<i>Sweet Suzy, Rudbeckia serotina</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
<b>PERENNIAL WEEDS:</b>	
Purple nutsedge	<i>Cyperus rotundus</i>
Yellow nutsedge	<i>Cyperus esculentus</i>

Existing stands of nutgrass must be turned under and chopped up thoroughly before treatment.

\*Suppression (partial control)

**APPLICATION DIRECTIONS**

The soil should be well-worked and dry enough to permit good soil mixing (incorporation). Pour the recommended amounts of DEVIRINOL and TILLAM 6-E into a spray tank during the filling operations. Apply in 25 10 to 50 gallons of water per acre.

For soil incorporated applications, use a properly calibrated, low-pressure, boom-type sprayer having good agitation.

In irrigated areas, do not apply before pre-irrigation. For all band applications, reduce dosage proportionately depending upon row spacing and band to be treated. Do not band application on rocky ground because thorough incorporation is not possible.

### **INCORPORATION DIRECTIONS**

The herbicides must be mixed (incorporated) into the soil IMMEDIATELY after application to prevent loss by evaporation. Whenever possible, application and incorporation should be done in the same operation.

### **INCORPORATION BEFORE PLANTING**

Use power-driven cultivation equipment set to cut to a depth of two to three inches in coarse soils and three to four inches in heavy soils OR a tandem disc set to cut to a depth of six inches, followed by a spiked-tooth harrow or some other leveling device which extends beyond ends of the disc. For thorough mixing, disc in two different directions (cross disc).

### **INCORPORATION AT PLANTING**

Use power-driven cultivation equipment set to cut to a depth of two to three inches.

### **PLANTING**

Crops should be planted or seeded immediately after application and incorporation. Do not use a drag behind the planter as it may concentrate the herbicides over the seed row and cause crop injury.

### **CULTURAL PRACTICES FOLLOWING APPLICATION**

Shallow cultivation may be necessary to control those susceptible weeds that escape control as well as those weeds not susceptible to either herbicide. Do not cultivate deeper than the depth of herbicide incorporation.

When cultivating fields where the tankmix has been banded in the row, use shields to prevent the movement of untreated soil into the treated row.

### **RECOMMENDATIONS USE RATES**

#### **TOMATOES (Direct Seeded (California Only) and Transplanted):**

Apply 2 to 4 pounds DEVIRINOL 50-DF plus 2-2/3 to 4 quarts TILLAM 6-E per broadcast acre. Use the lower rates on light soils (coarse textured - sandy) and the higher rate on heavy soils (fine textured - clay). Do not use hotcaps on transplanted tomatoes.

#### **TOBACCO (Transplanted):**

Before transplanting, apply 2 pounds DEVIRINOL 50-DF plus 2-2/3 quarts TILLAM 6-E. This combination may be tank mixed with Furadan® 4-F Insecticide-Nematicide or Mocap® 6-E Nematicide-Insecticide at recommended rates. Read the Furadan 4-F and Mocap 6-E labels for recommended uses, directions for use, precautions and limitations. When filling the

spray tank follow these orders of mixing: DEVRINOL 50-DF slurry, Furadan 4-F, TILLAM 6-E, OR, DEVRINOL 50-DF slurry, TILLAM 6-E, Mocap 6-E.

#### DEVRINOL 50-DF/TILLAM 6-E/DYFONATE® 4-EC TANKMIX COMBINATION

A tankmix combination of DEVRINOL 50-DF, DYFONATE 4-EC insecticide and TILLAM 6-E can be applied and mixed into the soil before transplanting tomatoes and tobacco, for control of weeds and soil insects. Refer to DEVRINOL/TILLAM Tankmix Combination for list of weeds controlled.

**NOTE:** DYFONATE 4-EC is a Restricted Use Pesticide. Observe all cautions and limitations on labeling of all products used in combinations. Make only one application per season. Do not contaminate water by cleaning equipment or disposal of wastes .

#### DIRECTIONS FOR USE

The recommended tankmix controls weeds by interfering with normal seed germination and seedling development. It does not control established weeds. All weed growth and crop stubble should be thoroughly worked into the soil before treatment.

For GENERAL USE PRECAUTIONS and DIRECTIONS FOR USE REFER TO DEVRINOL 50-DF/TILLAM 6-E Tankmix Recommendations for methods of tank mixing, application and incorporation. When using DEVRINOL 50-DF, make a slurry and add to a nearly filled spray tank with adequate agitation.

#### RECOMMENDATIONS USE RATES

##### TOMATOES (Direct Seeded (California Only) and Transplanted):

Apply 2 to 4 pounds DEVRINOL 50-DF plus 2-2/3 to 4 qts TILLAM 6-E plus 2 qts. DYFONATE 4-EC for control of symphylans or 4 qts. for control of symphylans and wireworms in 25 to 50 gallons of water per broadcast acre. Use the lower DEVRINOL 50-DF and TILLAM 6-E rates on light soils (coarse textured-sandy) and the higher rates on heavy soils (fine textured-clay). Do not use hotcaps on transplanted tomatoes.

##### TOBACCO (Transplanted):

Before transplanting apply 2 pounds DEVRINOL 50-DF plus 2-2/3 qts. TILLAM 6-E plus 2 qts. DYFONATE 4-EC for control of wireworms in 25 to 50 gallons of water per broadcast acre.

DEVTRINOL<sup>®</sup>, DYFONATE<sup>®</sup>, GRAMOXONE<sup>®</sup>, and TILLAM<sup>®</sup> are trademarks of ZENECA Group Companies

Ortho<sup>®</sup> is a trademark of Chevron Chemical Company

Goal<sup>®</sup> is a trademark of Rohm & Haas Company

Karmex<sup>®</sup> and Sinbar<sup>®</sup> are trademarks of E. I. du Pont de Nemours Co. (Inc.)

Roundup<sup>®</sup> is a trademark of Monsanto Company

Simazine<sup>®</sup> is a trademark of Drexel Chemical Company

Dasanit<sup>®</sup> and Namacur<sup>®</sup> are trademarks of Mobay Chemical Corporation

Diazinon<sup>®</sup> and Ridomil<sup>®</sup> are trademarks of Ciba-Geigy Corporation

Furadan<sup>®</sup> is a trademark of FMC Corporation

Mocap<sup>®</sup> is a trademark of Rhone-Poulenc Chemical Company